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THE
BRITISH HERBAL:
 AN
 HISTORY
 OF
PLANTS and TREES,
 NATIVES of BRITAIN,
 CULTIVATED FOR USE,
 OR
 RAISED FOR BEAUTY.

By JOHN HILL, M.D.



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MDCCLVI.

BRITISH HERBAL

HISTORY

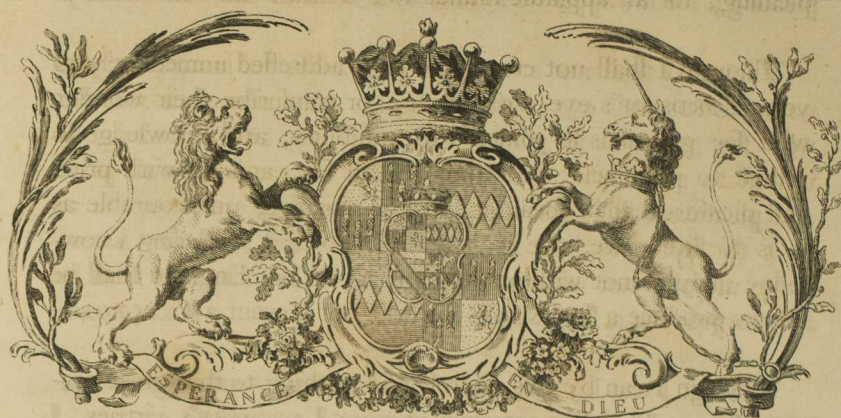
PLANTS and TREES

NATIVES of BRITAIN

CULTIVATED FOR USE

RAISED FOR BEAUTY

By JOHN HILL, M.D.



To the RIGHT HONOURABLE

The Earl of NORTHUMBERLAND.

My LORD,

IF I omit the other additions with which your name should stand accompanied, 'tis because I address you under a greater; PATRON OF USEFUL KNOWLEDGE: nor shall I stop there, since I may add that highest of all human titles, FATHER OF THE DISTRESSED. To have raised a little hospital to the full use and purpose of the most established charities, is more than to have amassed the total stores of knowledge; or to have received all the distinctions in the power of Kings.

To

DEDICATION.

To speak of your LORDSHIP as is the custom on these occasions, would appear with a new air; for to you, the language of dedications would be truth: yet though it were no more than echoing the universal voice, I know 'twould be unpleasing; for all applause sounds to a delicate ear like flattery.

Though I shall not crowd the page addressed immediately to your LORDSHIP's eye with praise; or transcribe their wonder who see greatness so joined with affability, and knowledge so united to politeness; one thing I shall say, and 'tis with pride and pleasure I shall speak it, that in this age, unfavourable as it is to literature, the least attempt toward rendering knowledge useful is not without its patron. When England shall be able to produce a LINNÆUS, he will not want a CLIFFORD.

Though I can by this address add nothing to that great opinion the world justly entertain of your LORDSHIP's virtues, I am conscious that I shall, in publishing it, do myself the highest honour it is possible I should obtain. Science can boast no greater glory, than to receive the patronage of Virtue.

I have the honour to be,

With the greatest respect,

My LORD,

Your LORDSHIP's most obedient,

and most humble servant,

JOHN HILL.

THE BRITISH HERBAL.

CLASS I.

Plants whose flower consists of SEVERAL PETALS, with NUMEROUS THREADS in the centre, and is followed by a cluster of NAKED SEEDS.*



HIS is a class distinguished by natural and obvious characters; and is proper for the student's first consideration, because the flowers and seeds are conspicuous, and the parts are few, large, and plain.

Mr. Ray established it as a class; and the regard he has shewn to the order of nature, in keeping these plants together, is a proof that his method, tho' plain and simple, is in some instances, better founded than those built upon smaller parts, and nicer distinctions.

Nature has joined no plants so plainly together as those which constitute this class: yet Morison, Tournefort, and others, have distributed them in various parts of their works; and Linnaeus has united the greater part of them with many other plants not properly ally'd to them, under the denomination of *polyandria*; a class altogether artificial, having but a mistaken foundation in nature.

This author in the seventh section includes, among what he calls *polyandria polygynia*, the crow-foot, which bears its seeds naked, and the hellebore, which has them included in pods.

Nature separates these plants, tho' Linnaeus joins them.

SERIES I.

Natives of BRITAIN.

THIS series includes all those genera, of which one or more species are natives of our country. The second comprehends those only of which we have none naturally wild.

To prevent the separation of those plants which nature has joined in form, tho' divided in their place of growth, we shall, under each

of the British genera, after describing those species which are natives here, add such as, for their use or beauty, have obtained a place in our gardens. But to prevent confusion or error, we shall there arrange the species distinctly under two divisions, as we have here distributed the genera, native, and foreign, under two series.

* The leaves which compose a flower are called petals.

G E N U S I.

STRAWBERRY.

FRAGARIA.

THE *strawberry* has three leaves on each footstalk; the flower consists of five petals, and its cup is divided into ten unequal segments.

The fleshy substance of the fruit is no character of this genus, for some species have it not.

Linnaeus separates this with some others from the rest of the class, arranging it among his *icefandria*, and placing it next the rose and bramble.

Imperfect observations might lead us to suppose there was an alliance between the fruit of the *strawberry* and bramble; and little genius's might cavil at the placing it here among plants with naked seeds: but the distinctions of nature are sufficiently correct if men will properly regard them: the bramble will then be found a berry-bearing shrub; the *strawberry* a naked seeded plant.

A berry is a fruit which has the seed surrounded by a juicy matter, and enclosed in a skin. Each grain of the blackberry is therefore such; but in the *strawberry* the seeds are disposed quite otherwise: They are neither surrounded by juice, nor covered with a skin: they stick *naked* on the outside of the fruit.

In all the plants of this class the seeds adhere to some substance at their base; and in the present instance that substance sometimes swells out, and becomes fleshy: but the seeds are still naked, the fruit is no berry, and the plant belongs to this class.

DIVISION I. BRITISH SPECIES.

1. Barren Strawberry.

Fragaria sterilis.

The root is thick, hard, covered with a brownish bark with a tinge of red, and edged with fibres.

The leaves stand three on each footstalk; and are of an oval figure, notched round the edges, and of a pale green: they are covered with a short, soft hair, and lie spread on the ground. Their footstalk is two inches long, and has a couple of small membranes at its base.

The stalks are slender, short, and weak: they are hairy, and have each a leaf or two on them divided into three parts.

Usually there stands but one flower on each footstalk, and this is large, white, and beautiful. It is composed of five broad leaves, dented at the ends; and has in its centre a tuft of short threads. It stands in a small cup divided into ten parts at the edge.

When the flower falls the seeds ripen in a little cluster. They are small, and have no pulpy matter about them; but five of the divisions of the cup close over and defend them.

It is very common in dry pastures and on ditch banks; and flowers in April.

The bark of the root, dried and powdered, is excellent in diarrhoeas: a scruple is a dose. This I write from experience; others seem not to have considered it as a medicine.

DIVISION II. FOREIGN SPECIES.

3. Shrubby Strawberry.

Fragaria frutescens.

The root is long, woody, and edged with fibres. The leaves stand on footstalks, three upon each, as in the common *strawberry*; and are large, oblong, and considerably hairy.

The stalk rises from the centre of the root, among the leaves, and is woody, firm, and two foot high. Toward the top it divides into two or

J. Bauhine calls this species *Fragaria non frugifera vel non vesca*. C. Bauhine, *Fragaria sterilis*.

2. Common Strawberry.

Fragaria vulgaris.

The root is long, thick, of a reddish brown, and edged with many fibres.

The footstalks are three or four inches long; and each supports three leaves. These are oblong and broad, and serrated; of a dark green on the upper side, and whitish underneath.

The stalks are four or five inches high: they divide at the top, and support several flowers.

These are large and white: each consists of five leaves, and has in its centre a great tuft of threads with yellow buttons.

The fruit follows, and is a fleshy receptacle for the seeds: it is large, pulpy, and pleasant. The seeds are numerous, small, and sharp-pointed; and they are stuck in the sides of the fruit.

It is common in woods, and thence brought into gardens, where culture has made it assume various forms. It also naturally differs in the size of the fruit in different countries.

The most considerable of these varieties are two: 1. The plum-fruited *strawberry*: and, 2. The great-fruited *strawberry* of Chili, with fleshy leaves.

C. Bauhine has described the first, and Dillenius the latter of these as distinct species; but they are accidental variations.

three parts, and spreads into a round head: There are leaves like those which rise from the root, at the inflexions of these branches; and upon their tops stand the flowers.

These are small and greenish, much of the same colour with the leaves, but of the form of the common *strawberry* flower.

The fruit is conic in shape, and is partly red, partly green. The hairs that rise from the seeds are very rough, and also greenish.

It

It is a native of Italy, and flowers and bears its fruit there somewhat earlier than our *strawberry*.

Zanoni calls this *Fragaria arborea flore herbaceo*. Morison, *Fragaria major vesca flore herbaceo*.

The fruit of the garden *strawberry* is cooling; and when eaten in any quantity, wine and sugar are proper additions.

The leaves are cooling and diuretick. An infusion of them is good in stranguries; and, when made stronger, in the jaundice. Powdered, they are useful in dysenteries; and a decoction of them sweetened with honey, is an excellent gargle for sore throats. They have the credit also, of being a cosmetick; but for that there is no great authority.

G E N U S II.

CINQUEFOIL.

PENTAPHYLLUM.

Cinquefoil has five leaves on every footstalk, and five petals in each flower. The seeds stand in a small button; and the cup is divided into ten unequal segments.

Linnaeus places this among his *icefandria polyginia*; the threads being about twenty in each flower, and growing to the inside of the cup or the petals; and the styles, from the rudiments of the seeds, numerous.

DIVISION I. BRITISH SPECIES.

1. Common Cinquefoil.

Pentaphyllum vulgare.

The root is long, thick, and brown.

The leaves stand five on each footstalk, and are oblong, hairy, and of a dusky green, serrated at the edges, and rounded or blunt at the ends: the footstalks are slender, and three inches long.

The mainstalks of the plant are long, very weak, and creeping. From the bottoms of the leaves rise slender pedicles, each sustaining a single flower. This is large, of a bright yellow, composed of roundish leaves, heart-fashioned at the ends, with a great cluster of short threads in the centre, and it stands in a cup formed of one leaf and divided into ten parts at the edge.

When the flower is fallen the seeds ripen in a little cluster, which is defended by five segments of the cup closing about it; the same five close about the flower while in the bud.

The long creeping stalks take root at the joints, whence leaves also arise, and the plant thus propagates itself abundantly.

It is frequent by way sides, and flowers in June.

The root is astringent: its outer rind is the most valuable part, and it is best given in powder, twelve grains for a dose. It thus stops purgings and is good in hæmorrhages of all kinds, particularly the overflowings of the menses, and spitting of blood.

In a larger dose it will often cure intermittent fevers.

A strong decoction of it is also good for sore mouths.

J. Bauhine calls this *Pentaphyllum vulgare repens*. C. Bauhine, *Quinquefolium majus repens*.

2. Silver-leaved Cinquefoil.

Pentaphyllum cretium foliis subargenteis.

The root is large, thick, and woody, brown on the outside, and white within: it divides into many heads, and has several fibres.

The stalks are numerous, firm, upright, hairy, and six inches high.

The leaves stand alternately: they have longish footstalks, at the base of which there is a little appendage surrounding the stalk: they are deeply divided at the edges into five large, but irregular

parts, and are of a dusky green above, and white underneath.

The flowers are small, and of a bright yellow: They are composed each of five petals, with a large tuft of threads in the centre.

The seed is ripened in small clusters. Five of the ten segments of the cup in this, as the others, surround first the bud of the flower, and afterwards the cluster of seeds.

It is common in dry barren places, and flowers in June.

Its virtues have not been try'd, they are probably the same with those of the other, but in a less degree.

J. Bauhine calls this *Pentaphyllum cretium foliis profunde scissis subargenteis flore luteo*. C. Bauhine, *Quinquefolium folio argenteo*.

3. Little rough Cinquefoil.

Pentaphyllum parvum hirsutum.

The root is long, thick, and black.

The leaves that rise from it are small, five on each footstalk, and hairy: they are of a dusky green, and deeply serrated: the footstalks that bear them are about two inches long.

The main stalks rise among these. They are slender, hairy, and of a reddish colour, and lie scattered on the ground.

The flowers stand at the tops of the branches, and are large, and of a beautiful yellow.

It grows in dry pastures, but is not frequent: I have seen it near Loughborough. It flowers in June.

J. Bauhine calls this *Pentaphyllum parvum hirsutum*. C. Bauhine, *Quinquefolium minus repens aureum*.

4. Three-fingered Cinquefoil.

Pentaphyllum minus repens foliis tripartitis.

The root is small and long; it is brown on the outside, and has many fibres.

The leaves stand on footstalks, which are slender, weak, and reddish. They have three principal divisions, and two smaller; appearing to be composed of five leaves thus irregular in their size.

The stalks run upon the ground and root at the joints, as in the common *cinquefoil*.

The

The flowers are very beautiful, moderately large, and of a gold yellow, with a tuft of threads in the centre.

The seeds stand in a little cluster.

It is a scarce plant. I have seen it in Charlton forest in Suffex, where it flowers in September. Plukenet describes this, Alm. p. 285.

5. Silky Cinquefoil.

Pentaphyllum pumilum foliis sericeis.

The root is oblong, small, brown, woody, and edged with fibres.

The leaves rising from it are small, and stand upon very slender footstalks. They are irregularly divided into five parts; three principal, which are forward, and two lesser toward the

stalk. These last are always small, and often wanting; and they, as well as the others, are notched at the tops. Their colour is a whitish green, and they feel silky.

The stalks are numerous, short, and spread upon the ground. The leaves on them are like those from the root, but usually they have only the three divisions.

The flowers are small and yellow.

The seeds stand in a little naked head.

It is not common in England, but frequent in the hilly parts of Scotland.

Sibbald calls it *Fragaria sylvestris affinis planta flore luteo*. Plukenet, *Pentaphyllum fruticosum minimum procumbens flore luteo foliis sericeis fragariae tenuis*.

DIVISION II. FOREIGN SPECIES.

1. Upright Cinquefoil.

Pentaphyllum rectum majus.

The root is long and thick, of a redish brown on the outside, paler within, and edged with fibres.

The leaves which rise from it are placed on short footstalks, and deeply divided into five parts; sometimes into more, often into less; and frequently the first leaves are scarce divided at all. These divisions or separate leaves are oblong, narrow, and deeply indented.

The stalk is two or three feet high, firm, hard, round, redish, and a little hairy, with leaves irregularly placed, resembling the other, but with fewer divisions.

The flowers stand at the tops of the branches, into which the upper part of the stalk divides; and are large, of a fine gold yellow, and sweet scented.

The seeds stand naked in a little cluster, defended by the cup.

It is a native of Italy and the south of France, and flowers in June.

The flowers are sometimes white.

C. Bauhine calls it *Quinquefolium rectum lucidum*.

2. White flowered Cinquefoil.

Pentaphyllum majus flore albo.

The root is long, slender, brown, and furnished with fibres.

The footstalks of the leaves are two or three inches long, slender, weak, and hairy. Five leaves stand on each; and they are oblong, broad, pointed at the ends, and hollowed. They are of a deep green, and smooth on the upper side, and hairy and white underneath.

The stalks are six or eight inches high, but weak and slender. They have numerous leaves standing irregularly on them, and divide toward the top into branches.

The flowers stand on footstalks singly towards their tops, and are large and white, with yellow threads in the centre. They much resemble those of the strawberry.

The seeds are small, and stand in a cluster.

It is a native of Hungary, and many other parts of Europe, and flowers in June.

J. Bauhine calls this *Pentaphyllum album*. C. Bauhine *Quinquefolium album majus*.

3. Yellow alpine Cinquefoil.

Pentaphyllum minus aureum.

The root is long and slender, of a dusky brown, and furnished with fibres.

The leaves that rise immediately from it stand on long slender pedicles, five on each; and they are oblong, broad, serrated, and pointed at the ends. They are of a shining green, but have a few scattered hairs upon them.

The stalks are weak, and hardly stand upright. They have several leaves on them, placed irregularly; and those toward the upper part are divided into three, rather than five segments.

The flowers stand on long footstalks; and are large, of a bright yellow, with a great tuft of deeper yellow threads in the midst.

When these are fallen, the seed appears in small clusters naked.

It is a native of Italy and Germany, and flowers in June. The virtues have not been tried.

C. Bauhine calls this *Quinquefolium minus repens alpinum aureum*.

GENUS III.

BASTARD CINQUEFOIL.

PENTAPHYLLOIDES.

THE flowers and seeds of this are like those of *cinquefoil*; but the leaves are more numerous, and stand in two rows, with an odd one at the end. Linnæus places this among his *icosantria polygynia*; the threads rising from the cup or petals, and the rudiments of the seeds being numerous.

DIVI.

DIVISION I. BRITISH SPECIES.

1. Strawberry Cinquefoil.

Pentaphylloides fragiferum.

The root is large, redish, and woody. It is divided at the top into several heads, and has a few fibres.

The footstalks of the leaves are four inches long, tender, and hairy. The leaves on each are five or seven. Three larger stand at the extremity, and are broad, oblong, hairy, serrated, and not unlike those of strawberry, but less. Below these there are two or four smaller; so that the whole leaf is of the winged kind, not fingered as in the *right cinquefoil*.

The stalk is round, firm, erect, and two feet and a half high. It is hairy, and divided at the top into branches.

The leaves on this are few, and placed irregularly. They consist usually of five leaves on the under part, and only three higher up. Something like this is seen also in the *right cinquefoil*, in which, though the radical leaves have always five, these have in some species only three divisions. These leaves are of the shape of others, but smaller.

The flowers are numerous, large, and weak. They stand at the tops of the branches, and are succeeded each by a head or cluster of seed in some degree resembling a strawberry.

It grows wild in Wales, and scarce elsewhere in Britain. It flowers in May and June.

J. Bauhine calls it *Pentaphyllum erectum* and C. Bauhine *Quinquefolium fragiferum*.

2. Purple Marsh-Cinquefoil.

Pentaphyllum palustre rubrum.

The root is long, blackish, and woody. It spreads a great way under the ground, and sends out many large fibres, which are white and soft.

The footstalks of the leaves are three or four inches long. On each stand five or seven leaves in two or three pairs, with an odd one at the end. These are oblong, narrow, and sharply serrated. Their colour is a bluish green on the upper side, and whitish underneath.

The stalks are a foot and a half long, weak, and not very upright. They are of a redish, and are in part covered with a kind of abbarbs from the leaves.

The leaves stand alternately on the stalk: they usually have only two pairs of wings, and an odd one; and are in shape and colour like others.

The flowers stand at the tops of the branches, and are large and beautiful, but of singular structure. There are five, and pointed segments of the cup, which are purple within, and themselves resemble a per. In these there stand five proper petals of the flower, which are also of a deep purple; but they are small, and the leaves of the cup are much more conspicuous. In the centre there is a cluster of purple threads.

When the flower is fallen, there comes a button or head of seeds, in form resembling a small strawberry.

It grows in muddy places in the marsh of England, but not frequently. Some parts of this

have been set in one of the bogs on Hampstead Heath; but they do not thrive.

It flowers in June. C. Bauhine calls it *Quinquefolium palustre rubrum*. J. Bauhine, *Pentaphyllum heptaphyllum fore rubro*.

3. Thick-leaved marsh Cinquefoil.

Pentaphyllum palustre rubrum crassius foliis.

The root is slender, long, and spreading, black on the outside, and reddish within.

The leaves that rise from it are very like those of the last described species; but they grow with less regularity. Usually there are three pairs on a stalk, with an odd one at the end; sometimes only two pairs, and not unfrequently there rises a single one near the place where the footstalk adheres to the root. These footstalks are weak and hairy, and the leaves thick and fleshy; so that they are well supported. They are of a pale green, and are much more hairy than those of the former; though in these it is but moderate.

The stalks are low, weak, and short, round, and usually redish toward the bottom.

The leaves on them are small, and in shape and colour like the divisions of the others, and stand in an uncertain number and irregular manner.

The flowers stand at the tops of their divisions, which being small and weak are scarce able to support them. They are large, and of a deep purple, with a cluster of threads in the middle.

The seeds ripen after in a little cluster.

It is common in Ireland, and in the north of England, as about Carlisle, and in some parts of Yorkshire. It flowers in July.

Plukenet calls it *Pentaphylloides palustre rubrum crassius & villosis foliis succicum & Hibernicum*.

4. Shrubby Cinquefoil.

Pentaphylloides fruticosum.

The root is composed of a small head, with a large number of thick fibres, and spreads greatly.

The stalk is round, firm, upright, woody, and of a brown colour; and towards the top it divides into several branches.

The leaves stand on short footstalks, rising alternately from different sides of the main stalk. They are oblong, and of a pale green on the upper side, and smooth; on the under side they are whitish and woolly. Seven of these generally stand on each footstalk, and they are divided as it were into four and three. Sometimes there are only five.

The flowers grow on the tops of the divisions of the stalks; and they are large and yellow. They consist each of five leaves, with a tuft of threads in the middle.

They quickly fall off, and the seeds follow in a small button; but nature has less regard to the ripening of these, because the plant is well propagated by the root.

The stalk of this plant throws off its bark frequently, so that it is commonly ragged.

It is a native of the northern parts of England, and flowers in June and July. About Thorpe and Egglestone abbey in Yorkshire it is common.

Ray calls it *Pentaphylloides fruticosum*.

C

DIVI.

DIVISION II. FOREIGN SPECIES.

1. Many-leaved Pentaphylloides.

Pentaphylloides supinum potentille facie.

*Plate 1
Fig. 12*

The root is long and blackish. It is divided into many heads, and spreads under the surface.

The leaves are very numerous. They stand on footstalks two inches long, and are composed of three or more pairs of smaller leaves, with an odd one at the end. These are oblong, narrow, sharply serrated, and of a pale green.

The stalks are a foot and a half long, but weak and yellow. They are divided into many branches toward the top, and have the same kind of leaves with those from the root, but smaller and fewer on a footstalk.

The flowers are moderately large, and yellow. They consist each of five leaves, and have a tuft of threads in the middle.

When these are fallen the seed succeeds in a little naked cluster.

It is a native of Germany, and flowers in July.

J. Bauhine calls it *Pentaphylloides supinum*. C. Bauhine, *Quinquefolio fragifero affinis*, from the small heads of seed somewhat resembling an unripe strawberry; but this is less than in many others, where it is not observed.

2. Silver-leaved strawberry Cinquefoil.

Pentaphylloides argentum fragiferum.

The root is long, thick, blackish, and woody, and is well furnished with fibres.

The leaves are numerous. Their footstalks are an inch and a half long; and they are composed each of nine parts, or divided into nine segments, so deep that they appear separate.

These are placed in four pairs, with an odd one at the end; and are narrow, longish, and serrated very sharply. They are of a pale green, and hairy. In the shape and disposition of the divisions they much resemble the leaves of the common silverweed.

The stalks are numerous, very small, and slender. They do not exceed four inches in length. They trail on the ground, and have the same kind of leaves irregularly placed on them as those at the root. Toward the top they divide into little branches, and others rise from the bottoms of the leaves.

The flowers are small, but of a beautiful gold yellow. They consist each of five leaves, and have a tuft of threads in the middle.

The seeds ripen in a small head, and are covered in part by five of the segments of the cup.

This is frequent in Switzerland, and flowers in July.

C. Bauhine calls it *Quinquefolio similis enneaphyllois*; and Parkinson *Enneaphyllon*; from its having nine leaves on a footstalk.

All these species of *pentaphylloides*, and those of *cinquefoil*, agree in virtues as they do in their characters with the common *cinquefoil* of our fields. This their taste manifests. They have not been severally tried; but there is not one whose root does not possess a strong astringency. Perhaps in this, as in many other cases, we do wrong in confining our trials to some one species. Others may have greater virtues in the same way than that commonly used. We see this in mint; only one species of which was regarded in medicine of a long time, but another has since been introduced; and many others deserve to be so.

GENUS IV.

SILVERWEED.

ARGENTINA.

*Plate 1
Fig. 13*

THE leaves of *silverweed* are pinnated, and the stalks creep and take root at the joints. The flowers and seeds agree with those of *cinquefoil*. This is one of the *icosandria polyandria* of Linnæus; that author ranking this plant, *cinquefoil*, and *pentaphylloides*, together under the name of *potentilla*.

Of this genus there is but one known species, and that is a common wild plant.

Common Silverweed.

Argentina vulgaris.

The root consists of a small head, and a vast multitude of fibres. It is of a deep brown, and has an austere taste.

The leaves rise in great numbers. They stand on short pedicles, and are very beautifully pinnated, each consisting of seven or eight pairs of small leaves on a stalk, and an odd one at the end. These are oblong, narrow, deeply serrated at the edges, and obtuse at the ends.

The stalks resemble those of *cinquefoil*. They are long, weak, red, and lie upon the ground, taking root at the joints. From these places rise also new clusters of leaves.

The flowers stand on long naked footstalks rising from the bosoms of the leaves; and they are

very large and beautiful. They are composed each of five petals, of a roundish figure, not dentated at the tops: and are of a most beautiful shining yellow: in the middle of each there is a tuft of threads, with yellow buttons; but smaller than in *cinquefoil*, and of a paler yellow.

The seeds are small: they grow in a roundish head, and are defended by five of the ten segments of the cup which close over them. These are hairy, and pointed. Nature in this, as in other plants that run so quick at the stalk, takes less care in ripening the seed.

It is frequent in barren places, and flowers in June.

The root possesses the greatest virtue, and it deserves to be much more known in medicine than it is.

It

It is cooling and astringent: and, to speak from experience, is excellent in diarrhoeas where the stools become bloody, and in overflowings of the menses. The best way of giving it is in powder, and its dose is a scruple. The young leaves in an infusion are diuretick.

I have tried it in intermittent fevers, and not wholly without success, though not with that de-

gree of certainty which attends some other medicines. From what experience shews of the efficacy and safety of this, and many of the roots of our own product, we seem inexcusable in not pursuing these useful researches. Botany, which has of late become a science much studied for curiosity, deserves to be much more cultivated for use.

GENUS V.

TORMENTILL.

TORMENTILLA.

THE flower of *tormentill* consists of four petals, and has a tuft of threads in the middle. The leaves stand seven upon a stalk.

This is one of the *icosandria polygynia* of Linnæus; tho' it shews the class of that author ill named, the threads in this being but sixteen, whereas the word *icosandria* expresses twenty: himself acknowledges however, that the number twenty is not essential to the distinction, tho' he has thence given the name.

That author seems to have corrected himself also, for establishing this as a distinct genus. He acknowledges that it is an artificial, rather than a natural distinction; but we wish, for the sake of those he has sometimes misled from the true end of this study, that he had made more such errors.

He was in the right here against his own correction; for *tormentill*, whose flower consists of four petals, is naturally distinguished as a genus from *cinquefoil*, whose flower has five.

Nature has also preserved the distinction, by allotting the number of seven leaves together on this plant, in which it differs from the *cinquefoil*, which has but five: nor does it less differ from the *pentaphylloides*, which has the same number, in their manner of growing: in those plants, they stand in the pinnated form, each whole leaf consisting of several pairs and an odd one; but in *tormentill*, they grow together from one point, as in the *cinquefoil*.

On these distinctions, by which it is so perfectly separated from all the precedent, and all the subsequent genera, *tormentill* has a right to a distinct place and name; and it is not Linnæus, who separated them, that errs; but he would do so, who, following that author's second thoughts, should join this and *cinquefoil* under one common name.

We have in this incident, a strong instance how far the love of system will carry a man of knowledge; it will lead him to correct what he did, knowing it to be right, and compel him into what is plainly wrong afterwards.

Of this genus there are but two known species, and both are natives of England.

1. Common Tormentill.

Tormentilla vulgaris.

*Plate 1
Fig. 14*

The root is large, thick, and of an irregular form; of a brownish colour on the outside, reddish within; and furnished with many fibres.

The leaves that rise from the root are few, not deeply divided, and of so little duration that they are rarely seen.

The stalks are numerous, long, slender, reddish, and a little hairy. They often lie in part upon the ground; but sometimes stand upright, to the height of six or eight inches.

The leaves grow on them at distances, and surround them. They are each composed of seven which are oblong, narrowish, and serrated. Their colour is a dusky green, and they are a little hairy.

The flowers stand at the tops of the branches, and are small, but of a bright and beautiful yellow. They are composed each of four broad petals, and have a tuft of threads in the middle.

When they are fallen the seed ripens in small heads.

It is common on heaths and in dry pastures. Hampstead heath abounds with it. It flowers in July and August. The generality of authors describe it under the name of *tormentilla* and *tormentilla vulgaris*.

It is an excellent astringent. The root possesses the greatest virtue, and may be given in powder or in decoction. In the first way twelve grains is a dose, in the latter an ounce and half may be put into three pints of water and boiled to a quart.

Either way it is good in diarrhoeas and hæmorrhages.

Beside these it possesses the virtues of a sudorific and cordial. It is therefore one of the best medicines the materia medica affords us in fevers attended with purging.

It is at all times good in the small pox; but when a diarrhoea comes on improperly in that disorder nothing excels it.

2. Creeping Tormentill.

Tormentilla reptans.

This is a beautiful little plant, which Plot, Morison, and others, from its numerous flowers, ranked among the *cinquefoils*; but the plain distinctions we have established in the characters of those two genera, shew it to belong to this.

The root is composed of a small head, and a great quantity of fibres, which are brown, tough, and of an austere taste.

The leaves are very beautifully divided; they stand on short, reddish footstalks, which are weak, and

and a little hairy: they are of a fine green colour, and sharply ferrated.

The stalks rise in the centre of these, four or five from each head of the root. They are long, slender, redish, and run upon the ground in the manner of those of cinquefoil, and send roots at every joint downwards, and tufts of leaves, and often new stalks upwards.

The flowers are moderately large, and of a beautiful yellow, with a little tuft of paler threads in the middle. They consist each of four petals, whence it is plain the plant is a *tormentill*, not a cinquefoil.

When these are fallen, the seeds ripen in a small oval cluster.

GENUS VI. AVENS.

CARYOPHYLLATA.

THE flower of *avens* consists of five petals, with a tuft of threads in the centre. The seeds have long and crooked hairs growing to them; and the leaves are pinnated.

Linnaeus ranks this among the *icofandria polygynia*; and taking away its ancient and proper name, calls it *geum*.

This last is a name usually understood to be long to a very different plant. This is therefore one of those instances in which he has brought in needless confusion. The ancient name, *caryophyllata*, is very proper; the root of this plant having a fragrant and aromatick smell, resembling that of the clove spice, *caryophyllus*.

DIVISION I. BRITISH SPECIES.

1. Common Avens.

Caryophyllata vulgaris.

The root is thick, and of an irregular figure, and usually lies obliquely in the ground. It is of a redish colour, an austere taste, and a very light, pleasant, aromatick smell; and has many thick fibres.

The leaves rise in a little cluster six or eight together and are of a very pretty shape. They are pinnated, but in a singular manner, the several pairs of small leaves on the sides bearing no proportion to the odd one at the end, which is large and rounded. There are three or four of these pairs, and they are small, broad, and obtuse. The colour of the whole leaf is a pale green, and it is somewhat hairy.

The stalk is round, firm, hard, upright, and branched. There stand irregularly on it several leaves. They have a couple of broad, short segments at the stalk; and at the extremity are divided into three parts, and are deeply ferrated.

The flowers are small and yellow, and have threads of a paler colour in the centre.

The seeds stand in a large button, naked, and furnished with hooked points.

It is common in pastures and under hedges; and flowers in June.

Authors describe it under the name of *caryophyllata vulgaris*; in English we call it *avens* and *herb bennet*.

It possesses the virtues of the tormentill, but is more a cordial, and sudorifick with less astringency. The root in powder, is good in fevers attended with diarrhæas. Ten grains is a dose. An infusion made by pouring a pint of boiling

water on half an ounce of it cut to slices, is an excellent sudorifick. The powder of the root in a dose of half a dram, repeated in the manner of the bark, will frequently cure agues, where the bark itself, through ill management, has failed.

The physician often meets with patients who are so averse to the bark that they will not touch it: these home-produced remedies should then be tried, for they will generally succeed.

The powder of the root in a dose of half a dram, repeated in the manner of the bark, will frequently cure agues, where the bark itself, through ill management, has failed.

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the outside, and paler within; and they have a pleasant smell. They consist each of five petals, and have a tuft of threads with yellow buttons in the centre: and they stand in a spreading, purple kind of cup, very beautiful. This is formed of five leaves of the entire cup of the flower, which, as in the others before described, consists of five larger, and five smaller.

The seeds grow in a naked head, and this stands on a longish pedicle. They have hairs hanging from them in the same manner as the others.

It is a native of Britain; but not common. It has been found about Settle in Yorkshire, and on Snowden hill in Wales, and, as is said, in Essex. It is by some called *mountain avens*, and by others *water avens*, its place being naturally in bogs on the tops of hills.

C. Bauhine calls it *Caryophyllata aquatica nutante flore*, and J. Bauhine *Caryophyllata aquatica flore striato*. Others, *Caryophyllata montana purpurea*.

3. Avens with a single white flower.

Caryophyllata flore albo solitario.

The root is long, brownish, with a tinge of red, and of a woody substance. It spreads under the surface, and sends up leaves in many places, in separate tufts.

These stand on long and slender footstalks; and are oblong, of a deep green, and pointed at the ends.

The stalks are hard, woody, and lie upon the ground. They are four or five inches long, and have the same sort of leaves on them, but smaller. They are harsh to the touch, and white underneath; as are also those from the root.

The flowers are large, white, and very beautiful. They resemble those of the common straw-

berry, but that they are larger. They stand singly on long, slender, hairy footstalks, and have a tuft of threads in the middle.

The seeds stand in naked heads, furnished with long and feathery filaments; so that they resemble those of the pasqueflower.

It is not uncommon in Ireland, particularly in Galway. It flowers in June.

Morison calls it *Caryophyllata alpina chamædryos folio*. C. Bauhine, *Chamædryos alpina cisti flore*.

4. Cinquefoil avens.

Caryophyllata pentaphyllæa.

The root is a tuft of numerous, brown, thick fibres rising from a small head: of a fragrant smell, and aromatick taste.

The leaves arising from it, stand on long, hairy footstalks. They are divided deeply into five parts, sometimes into seven, in the manner of those of the tormentill leaves; and are of a pale green and hairy. The several segments are narrow, pointed at the ends, and notched at the edges.

The stalk is round, hairy, and a foot high.

The leaves stand irregularly on it, and are divided into five parts, in the manner of those at the bottom. These segments are narrow, hairy, and ferrated.

The flowers are small and yellow. They consist each of five leaves, with a tuft of threads in the centre; and stand on the tops of the branches.

The seeds follow in a naked, small head, and have hairs hanging to them like those of the common avens, but more tender and soft.

It is found in some parts of Scotland; and flowers in May.

J. Bauhine calls it *Caryophyllata pentaphyllæa*. C. Bauhine, *Caryophyllata alpina quinquesolia*.

DIVISION II. FOREIGN SPECIES.

1. Avens with upright single flowers.

Caryophyllata flore erecto solitario.

The root is oblong, thick, and of an irregular shape. It runs obliquely under the surface, and is edged with fibres. Its colour is black, and its smell aromatick.

The leaves rise four or five together, and stand on short footstalks. They consist each of three or four pairs of short, blunt pinnæ, and a large leaf at the end. This is divided grossly into three parts. Upon the whole, it has a rounded shape, and it is irregularly notched. The whole leaf is of a shining green; and the footstalk is hairy.

The stalks are round, upright, green, and a little hairy. Their leaves are hairy, more divided and notched than those at the bottom; and they stand irregularly.

The flowers stand singly on long, slender footstalks; and are yellow, large, and beautiful. They are bigger than the flowers of cinquefoil; and have a tuft of threads in the centre.

The seeds ripen in a small cluster, and have threads hanging from them; but these are much softer and finer than the threads of the other kinds.

J. Bauhine calls this *Caryophyllata montana flore* N^o 1.

magno luteo. C. Bauhine, *Caryophyllata alpina lutea*.

It seems to possess the virtues of the common avens in a very powerful degree.

2. Creeping Avens with finely divided leaves.

Caryophyllata foliis incis. caule repente.

The root is long, brown, slender, divided into branches, and beset with fibres.

The leaves stand on short footstalks; are divided into a number of small parts, which are obtuse, short, and notched at the edges.

The stalks are weak and low; they are a little hairy, and usually lie upon the ground. They have about four leaves on them, and these smaller than those from the root; otherwise alike, except that the divisions are finer.

On the tops of the stalks stand the flowers. They are large, yellow, and very beautiful. One usually stands on the top of each stalk. They are composed of an uncertain number of leaves, and have a tuft of threads in the centre.

The seeds stand in a small, naked head; but they have fine and soft hairs growing from them.

It is a native of the cold mountainous parts of Switzerland, and other parts of Europe. It flowers in June.

The virtues are probably the same with those of the others: but it stands particularly recommended as a vulnerary.

Barrilier calls it *Coryophyllata alpina tenui folia incana flore luteo longius radicata*. C. Bauhine, *Coryophyllata alpina apii folio*.

G E N U S VII.

PASQUEFLOWER.

PULSATILLA.

THE flower consists of six petals; and the seeds are furnished with downy threads. There is a kind of leafy cup which stands remote, but belongs to the flower.

This is one of the *polyandria polygynia* of Linnæus; but it is properly of the same class with the precedent: nature has joined it to them by plain characters, tho' Linnæus separates it upon small variations. In this class it properly connects the avens and anemone; its seeds being furnished with a hairy or thready matter, tho' finer and more delicate than that of those robust plants.

We shall only interpose between this and the anemone, a genus nearly allied to it, that of the clematis, which, tho' very different in the substance of the stalks and manner of growing, yet perfectly resembles it in the feathered seeds.

Linnæus, in his *Genera Plantarum*, allows the *pulsatilla* to be a distinct genus; but in his *Species Plantarum*, since published, he makes it only a species of anemone. We see here a second instance of what was before observed, that the fondness for making new distinctions gets the better of this author's earlier knowledge. The particular remote cup, we have mentioned in the characters of this genus, distinguishes it sufficiently, as such, from the anemone; and this author himself once thought so. At present, he not only includes this, but among the hepatica also, the species of anemone: thus, taking away the use of those ancient and universally received names, and calling the plants by that of the anemone, from which, they are sufficiently distinguished.

Of the species of *pasqueflower* there is but one a native of Britain.

DIVISION I. BRITISH SPECIES.

Pasqueflower.

Pulsatilla.

The root is large, long, and thick; it is frequently divided into several heads, and they are tufted with the remains of decayed footstalks of leaves. The colour is blackish, and the taste bitter and acrid.

The leaves stand on footstalks of four inches long, and are beautifully divided into a number of small parts. These footstalks are redish at the bottom, hairy, and moderately thick. The leaves also are hairy, and of a thick substance.

The stalk is round, hairy, hollow, and weak. While it supports the flower it is about six inches in height; but when that is fallen, it shoots up to a foot. This seems a provision of nature for scattering of the seeds, the wind having more power upon them, as they stand higher. There are no leaves on this stalk except one, which we have there called a sort of cup to the flower. This stands always in one certain place, which is

a little below the flower; and is divided into many small parts, and is very hairy. This leaf surrounds the stalk at its base, and is there of one entire piece, its divisions beginning at a little distance above.

The flower stands on the top of the stalk, and each stalk has only one. It is large, purple, hairy without, and smooth within; and is composed of six petals, which are pointed at the ends. It has little smell, but that is very agreeable. In the centre stands a tuft of threads with yellow heads, surrounding a button, which afterwards becomes the head of seeds, covered with long, silvery hairs. When the plant is in seed the leaf which served as a cup, stand on the middle of the stalk; for the stalk grows in length only in the upper part.

It is found wild on Gogmagog hills in Cambridgeshire, and in some parts of Lincolnshire, and Yorkshire; and flowers in April.

J. Bauhine calls it *Pulsatilla purpurea cerulea*. C. Bauhine, *Pulsatilla folio crasso et majore flore*.

DIVISION II. FOREIGN SPECIES.

1. Pinnate-leaved Pasqueflower.

Pulsatilla foliis pinnatis.

The root is long, black, large, and divided into many heads.

The leaves stand on footstalks of four inches long, and are composed of several pairs of obtuse pinnæ divided deeply at the edges. They are of a firm, hard substance, a pale green colour, and hairy.

The stalk is five inches high, hollow, weak, and hairy. The flower is remarkably large, and stands single at the top, each stalk bearing but one. It is composed of six long and broad pe-

tals, and has a great tuft of threads in the centre. Under it there stands such a singular leaf, as in the common *pasqueflower*, forming a kind of cup.

The flower stands erect; but is uncertain in colour. It is most usually of a pale yellow: sometimes it is of a deeper yellow, and sometimes white. These are less remarkable variations; for we see many flowers changing, according to the culture or natural accidents, from a very deep colour, through all the gradations of the same colour into white: but what is singular in this, is that the flower is sometimes also purple, the whole plant remaining in other respects exactly the same.

It is a native of Switzerland, and some parts of Germany, where it lives in the moist barren forests; but the flower is not so considerable there as in our gardens. It flowers in spring.

C. Bauhine calls it *Pulsatilla apii folio vernalis flore majore*.

2. Small-flowered Pasqueflower.

Pulsatilla flore minore violaceo.

The root is long, thick, dark coloured, acrid to the taste, and furnished with large fibres.

The leaves stand on short footstalks, and are divided into numerous very long and very narrow segments. Their colour is a faint green; and their footstalks, towards the bottom, are purplish.

The stalks are numerous, and each sustains a single flower. They are hairy, and altogether without leaves except one at the upper part, which, as in the other species, surrounds the stalk at its bottom; and upwards dividing into numerous, fine segments, stands as a kind of cup to the flower.

The flower itself is small, and hangs downward. It is composed of six oblong, narrow pointed leaves, whose tops turn up. Its colour is a deep violet blue, almost black.

The seeds follow in a cluster, and are covered with fine silvery down.

It is a native of the northern parts of Europe, and flowers in April.

J. Bauhine calls it *Pulsatilla flore ceruleo clauso*, and C. Bauhine *Pulsatilla flore minore nigricante*.

G E N U S VIII.

CLIMBER.

C L E M A T I S.

THE flower of *clematis* consists of four petals, and has no cup: and the seeds have long appendages resembling feathers.

Linnæus places this among the *polyandria polygynia*, uniting with it, under the same name, the flammula and viticella; although, according to his own account, they differ plainly; the flammula in the number of those parts, he makes essential to the generic character: those he calls *clematis* having a great number of pistils, and the flammula but eight.

DIVISION I. BRITISH SPECIES:

1. Travellers joy.

Viorna.

The root is brown, thick, and full of fibres.

The first leaves are small and slightly divided.

The stalks are thick, hard, woody, of an angular shape, and the younger ones hairy, and often redish. The others have a white rind; and they are very tough, and formed for twisting round every thing they come near.

The leaves stand two at a joint, and are pinnated; each consisting of two pairs of smaller leaves, and an odd one at the end of the stalk.

These are oval, slightly serrated, and pointed at the end. Their colour is a pale green, and their substance firm.

The flowers are white. They stand in tufts, and are small: each is composed of four leaves, whitish, and of a sweet smell. In the

centre is a tuft of threads; and, when the seed ripens, it stands in a naked cluster, bearded with fine long silvery hairs.

It is frequent in our hedges, and flowers in July.

J. Bauhine calls it *Clematis latifolia, frœ atragene quibusdam*. C. Bauhine, *Clematidis sylvestris latifolia*.

Authors have described two or three accidental varieties of this plant, under the name of distinct species.

We see the leaves sometimes undivided, and sometimes broader than is usual. The *Clematidis sylvestris latifolia*, and *Clematidis latifolia integra*, of C. Bauhine, are only two of these varieties. These are not unfrequent in our hedges among the common kind: but we have only this one British species.

DIVISION II. FOREIGN SPECIES.

1. Spanish Viorna.

Clematis Betica.

The root is long, not thick, woody, brown, and of an acrid taste.

The first leaves are simple, and undivided. They much resemble those of the pear-tree, only they are indented at the edge.

The stalks are very slender, and of a vast length, whitish, woody, and with an uneven rind.

The leaves stand three, four, five, or more, at a joint. They are of an oval shape, and dented at the edges; and each has its separate, longish, and slender pedicle. They are of a firm substance, and shining green.

At the same joints where these stand, there grow constantly two tendrils; one parts each

way from the stalk; and they are very firm and tough. These lay hold of any thing to support the plant, and the leaves seem to rise from their bosom.

The flowers are small and whitish, and the seeds have a long beard of silvery down.

It is a native of Spain, and other warm parts of Europe, where it covers whole trees. It flowers in June, and its seeds ripen in August.

J. Bauhine calls it *Clematis Betica clusii*, and C. Bauhine *Clematis peregrina foliis pyri incisii*.

The foreign and British *clematis* agree in their nature and qualities as well as form. They are acrid, and too sharp for internal use; but an oil made of the leaves, infused in oil of olives, is esteemed good in the sciatica.

G E N U S

GENUS IX.

WINDFLOWER.

ANEMONE.

THE flower of the *anemone* is large, and consists of an uncertain number of petals with a great tuft of short threads in the centre. There is not that single and particular leaf at some distance under the flower, which is seen in the pulsatilla; but the leaves naturally stand in a regular order about the middle of the stalk, three rising together.

Linnaeus places this among the *polyandria polygynia*. In his *Genera Plantarum* it stands separate from the pulsatilla; but in his succeeding works he has joined them, as we have observed, under that article.

The English name of this genus is *wind-flower*; but it is disused, and we have adopted the Latin word entirely.

DIVISION I. BRITISH SPECIES.

1. White Wood-Anemone.

Anemone nemorosa alba.

The root is thick, oblong, and creeps irregularly under the surface. While young, it is yellowish; when older, of a reddish brown; whitish within, furnished with many fibres, and of an austere and very acrid taste.

The leaves that rise immediately from the root stand on long slender footstalks, and are large and beautifully divided. The footstalk is purplish, and somewhat hairy, and the divisions of the leaf large and indented.

The stalk is slender, weak, round, and eight inches high. It is purplish at the bottom, and green upwards.

The leaves grow with regularity upon it. They are three: they all rise from the same place, and stand on moderately long footstalks. They are beautifully divided, and their footstalks are reddish, and somewhat hairy. The place of these is a little higher than the middle of the stalk; and from this it is again naked to the top.

The flower stands single on the top of the stalk. It consists of six oblong and large leaves, and has a tuft of threads with yellow heads in the centre. Its colour is usually white, often reddish, or with more or less of a purplish tinge.

The seeds follow in a button or little cluster, which is rough, each seed having a hooked short beard.

It is a native of England, and common in woods. It flowers in April.

J. Bauhine calls it *Ranunculus phragmites albus* & *purpureus vernus*. C. Bauhine, *Anemone nemorosa flore majore*.

Its virtues are unknown; but there is such an acrid taste in every part of it, that it would seem unsafe to try it internally.

A small winged insect is apt to deposit its eggs on the underpart of the leaves of this species; and they somewhat resemble the round dots in which the seeds of fern are lodged. A leaf of it thus decorated is unluckily represented in a figure in the last edition of Ray's Synopsis. The form, substance, and disposition of these dots ought to have informed the botanist they were not seeds. It is a justice we owe the memory of Mr. Ray to

observe, that although this error stands in a work authorized by his name, it is not to be charged to his account. The description p. 124. and figure, tab. 3. of that work, are both added by the late Dr. Dellenius, botanical professor at Oxford, who saw the plant under the name of a fern in the collection of Bobart. He therefore was the person first imposed upon: The plant was given him, whether ignorantly or in wantonness, by a person whom he calls the Conjuror of Chelgrave.

2. Large-leaved Wood-Anemone.

Anemone foliis majoribus flore violaceo.

The root is long, slender, irregularly shaped, and spreads under the surface; the colour is a deep brown, and the taste more fiery and acid than the last.

The leaves stand on footstalks two inches long, and resemble those of the *common wood-anemone* in form, size, and division. The footstalks are purple at the bottom, and the leaves of a shining green.

The stalk is five inches high, round, slender, purple toward the bottom, and weak.

The leaves on the stalk are three. They all grow from the same spot, and have scarce any footstalk. They are large, and of a beautiful green. They are divided into three large parts, and then deeply into several smaller.

The flower stands singly at the top of the stalk, and has no cup. Its colour is a deep violet blue; and it has a great tuft of yellow threads in the centre. The petals are oblong, and obtuse at the end. Their number is uncertain, from six to twelve or fifteen; in which later case they are very narrow.

This is a sort of doubling of the flower, but it is natural to it often without culture, and also to the common white wood kind.

The seeds stand in a small rough cluster.

It is a native of most of the cold parts of Europe. I have found it in Charleton forest, and in one of the places mentioned in Mr. Ray's Synopsis, in Surry.

Mentzelius calls it *Ranunculus numerosus flore caeruleo foliis majoribus Apennini montes*.

D I V I -

DIVISION II. FOREIGN SPECIES.

1. Fine-leaved red Anemone.

Anemone tenuifolia flore rubente.

The root is large, thick, and of an irregular form.

The leaves are numerous: they rise from several heads of the same root, a cluster from each; and have footstalks of two or three inches in length. They are large, and in the whole of a somewhat triangular form. Each is divided into three principal parts, two at the bottom, and one at the end; and these are again deeply indented.

The stalk is robust, purplish near the bottom, and ten inches high.

Toward its middle there stand three leaves, all growing from one place; and they are small, and have no footstalks. They resemble the separate divisions of the lower leaves.

The flower is single, large, and of a pale red: not rarely it is white, or very faintly tinged: but red is the natural colour. It is composed of six leaves, and has a large tuft of threads in the middle.

The seeds stand in a small naked button.

It is a native of the East, and flowers in the spring.

C. Bauhine calls it *Anemone tenuifolia simpliciflora*.

We had it originally from Constantinople; and it is raised to great beauty, and with great variety in our gardens, by being made double, and

of a variety of colours, from the deepest red with a purple tinge, to the palest flesh colour.

2. Trifoliate Anemone.

Anemone trifolia.

The root is long and slender, and spreads under the surface of the ground, dividing into several parts, and sending up leaves from many heads. Its colour is brown, its taste acrid, and it has many fibres.

The leaves stand three on each footstalk; and are of an oval figure, pointed, serrated, and without separate footstalks; adhering by their base to the top of the stalk rising from the root, which is three inches long, slender, and purplish.

The stalk is six inches high, round, weak, and purplish.

The leaves are three on this stalk. They all rise from the same point, and have long footstalks, each consisting of three other distinct leaves, and in all respects resembling those that rise immediately from the root.

The flower is large and beautiful. It is white, with a blush of purple, and resembles the flower of the *common wood-anemone*. It is composed of six petals, with a tuft of threads in the centre.

The seeds follow in a naked head.

It is a native of France, and some other parts of Europe, and flowers in spring.

C. Bauhine calls it *Anemone trifolia flore albo*.

GENUS X.

PLEASANT EYE.

ADONIS.

THE flower of the *adonis* consists of an uncertain number of petals, with a tuft of extremely short threads in the centre: the seeds stand naked in a longish head; and the leaves are divided into fine segments.

Linnaeus places it among the *polyandria polygynia*; and he very justly reduces to this genus that plant commonly known by the name of *fine-leaved black hellebore*. That is indeed a species of *adonis*; and they were guilty of introducing confusion into the science who called it by the name of another genus, to which it by no means belongs. Linnaeus deserves praise, that he calls this a species of *adonis*; and it were to be wished he had not admitted the real black hellebores into the same class.

DIVISION I. BRITISH SPECIES.

1. Common Adonis.

Adonis radice annua.

The root is long, slender, whitish, and furnished with large fibres.

The first leaves are large, divided into a great number of small and fine segments, and placed on footstalks of two inches long. They are of a pale green colour, and tender substance.

The stalks are round, striated, green, and a foot and half high. They divide into many branches, and stand tolerably upright.

The leaves grow on them irregularly, and are like those which rise from the root, but smaller.

The flowers stand at the tops of the branches: they are moderately large, and of a beautiful scarlet colour; and are composed of an uncertain

No II.

number of petals, with a bundle of threads, having deep purple heads, in the centre.

The seeds stand naked in a longish cluster.

It is common in some parts of England in corn-fields, and flowers in August; it is no where so frequent as in Kent and Sussex.

C. Bauhine calls it *Flos adonis vulgo alius eranthemum*; others *Adonis*, and *Flos adonis*.

The flower is sometimes of a purplish colour, and the leaves are sometimes longer than in the common state of the plant. These are varieties only; but they have been described as separate species.

It has not been any where much used in medicine. Some recommend an infusion of the flowers in wine for cholicks; but there are many better remedies; and this wants the authority of more experience.

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D I V I -

DIVISION II. FOREIGN SPECIES.

1. Perennial-rooted Adonis.

Adonis radice perenni.

Plate 2.
Fig. 10.

The root is composed of a small head, divided into several parts, and furnished with a great number of thick fibres. It is of a deep blackish brown colour, and a bitterish and acrimonious taste.

The first leaves are two inches long, and composed of a great number of very slender fine segments. They stand on short footstalks, and are of a dusky green colour.

The stalks are numerous, striated, slender, and eight inches high.

The leaves stand irregularly on them, and they resemble those from the root; but they are smaller. They have a bitterish taste, and when rubbed an unpleasant smell.

The flowers stand at the tops of the stalks; and are large, beautiful, and yellow. They consist each of sixteen striated petals, indented, and often turning back at the points.

The seeds stand in an oblong cluster, large, and naked.

It is a native of Bohemia, and other parts of Europe, and flowers in July.

C. Bauhine calls it *Helleborus niger tenuifolius baphitbalmi flore*.

The root resembles that of black hellebore in aspect; whence the plant, though altogether un-

like, obtained that name. It is acrid and poisonous: it has sometimes been sold in the stead of black hellebore, or mixed among black hellebore, and, it is said, with fatal consequences.

It has the sharpness of the most violent of the crow-foots, and its juice will eat away warts.

2. Great flowered Adonis.

Adonis flore maximo.

Plate 2.
Fig. 11.

The root is composed of a small head, and a vast number of long and thick fibres. It is black, and of an acrid and disagreeable taste.

The first leaves are small: they have very short footstalks, and are divided into a few slender long segments. Their colour is a pale green, and they are of an acrid taste.

The stalks are short, thick, and fleshy: they have large joints, and at each one leaf divided into very narrow, but not numerous segments.

The flower is yellow, very large for the bigness of the plant, and stands at the top of the stalk. It is composed of several petals, and has a large tuft of paler yellow threads in the centre.

The seeds stand in a naked oval head. It is found in some parts of Germany, and flowers in July and August.

Mentzelius calls it *Helleborus niger ferulaceus*, seu *Pseudohelleborus caule geniculato flore magno inflexo tulipe*.

Its virtues are unknown.

G E N U S XI.

M O U S E T A I L.

M Y O S U R O S.

THE flower consists of five small petals, and is placed in a five-leaved cup. The seeds stand naked in a long head; and the leaves are grassy.

Linnæus places this among the *pentandria polygynia*, separating it, by many classes, from the *ranunculus*, *adonis*, and other of the plants belonging to this, although he acknowledges it is very nearly allied to them*.

This may shew the imperfection of his method, even upon his own confession. The reason of his separating this plant from the others, is that there are in them great tufts of threads in the middle of the flower; and in this only five. Let us appeal to nature, whether this plant, which agrees with the others of the present class in the form and structure of its flower, and in the singular disposition and arrangement of its seeds, should be taken from among them, and placed in a far distant class, only because the filaments or threads in the flower are in a smaller number. Reason declares utterly against this; nor is there the just authority of observation for placing it in any other. This author, though, from its having five filaments, he has ranked it among the *pentandria*; yet is obliged to confess, that the number of those threads is subject in this genus to great variation†.

This acknowledgment not only shews he has put the present plant out of its place, but shakes the very foundation of his method: for it depends upon the numbering of these filaments. In the arrangement we have made of these several genera, the *mouse-tail* appears plainly to belong to them, and to have its proper place. We have given the disposition of the seeds in a naked head, as the great character of the class; and in some that head is shorter, in others longer. In most of the genera first named here it is round; in the *adonis* it is oblong and thick; and in the *mouse-tail*, which we place next, it is long and thin. There is no more difference.

Of this genus there is but one known species, and that is a native of England.

* *Myosuri summa est affinitas cum ranunculo.*

† Numerus flaminum in hoc genere valde variat. Linn. Gen. Plant. 311.

Mouse-tail.

Mouse-tail.

Myosuros.

Plate 2.
Fig. 12.

The root is composed of a great number of whitish fibres.

The leaves are very numerous. They rise in a thick tuft, and resemble the shoots of grass. They are three inches long, extremely narrow, and smallest toward the bottom, for they grow somewhat broader toward the end; they are of a fresh green, and soft.

The stalks are numerous also: they rise from the centre of the tuft of leaves, and are round, slender, naked, and of a pale green.

At the top of each stands a single flower; which is small and greenish, composed of five little petals, and standing in a cup composed of five leaves

also, which though small are somewhat larger than the flower. In the centre stand several threads in an uncertain number, and on their tops are placed oblong buttons.

When the flower is fallen, the seeds appear placed with great regularity in a long and slender head, the whole resembling the tail of a mouse; whence the plant has been named.

It is not uncommon in dry places: about Paddington we have it in abundance.

It flowers in May. Authors call it *Myosurus*, and *Cauda muris*.

The taste of the whole plant is fiery and acrid: in this also it agrees with the crowfoot kind. Its virtues are not known; but it appears one of those plants which are not to be given internally.

G E N U S XII.

C R O W F O O T.

R A N U N C U L U S.

THE flower consists of five petals, with a tuft of short threads in the centre, and stands in a cup composed of five leaves: the seeds stand naked, and in roundish clusters.

Linnæus places this genus among the *polyandria polygynia*, and speaks with great warmth of the confusion and uncertainty to which it was liable, till he discovered the nectarium of the flower. It appears to me, on the contrary, that this, though an ingenious and curious observation, is not of great use; that the genus is sufficiently distinct without it, and little liable to any other confusion than such as may arise from learned trifling.

The parts of fructification in this genus, Linnæus observes, are always inconstant and uncertain: He means that the filaments in the middle of the flower are so. This is not singular in crowfoot; we have just shewn it is so in mouse-tail, and shall shew the same in many others. If any thing is to be inferred from this, it is, that these, though the foundation of that author's system, are, upon his own confession, unfit for such a purpose. The characters we establish from the flower in general, and the seed, are not subject to this inconstancy or irregularity; and therefore they are more proper.

The nectarium which that author here calls in to the assistance of his distinctions, is a little hollow, sometimes open, sometimes closed up, in the bottom of every petal of the flower.

We shall see by this, and numerous other instances, that a method founded more on the obvious parts of plants is less liable to uncertainty, and more agreeable to the distinctions made by nature.

DIVISION I. BRITISH SPECIES.

1. Round-rooted Crowfoot.

Ranunculus radice rotunda.

Plate 2.
Fig. 13.

The root is a small round head, with some whitish fibres. Its colour is whitish or redish, and its taste insufferably acrid.

The leaves that rise from the root are large, broad, and divided into three parts, each of which is again deeply notched: they stand on long footstalks, and are of a pale green.

The stalks are round, upright, and branched. The leaves that grow on these are small and divided into a few deep segments.

The flowers are large, and of a beautiful yellow. They are composed each of five rounded petals, and have a tuft of threads in the centre.

The seeds stand naked in a small head.

It is common in our pastures, and flowers in May.

C. Bauhine calls it *Ranunculus pratensis radice verticilli modo rotunda*. J. Bauhine, *Ranunculus tuberosus major*.

2. Common creeping Crowfoot.

Ranunculus pratensis repens vulgaris.

Plate 2.
Fig. 14.

The root is composed of a great tuft of whitish fibres hanging from a very small head.

The leaves that rise from it are large, deeply divided at the edges, and often spotted. Each is composed as it were of three distinct parts. The colour is a dead green, and they are somewhat hairy: they stand on long hollowed footstalks.

The stalks are slender and weak: some run upon the ground, and take root at the joints; others are more erect, and support the flowers.

The leaves on these are small, and deeply divided.

The flowers are large and yellow.

The seeds follow in naked heads.

It is common in meadows, and flowers in May.

C. Bauhine calls it *Ranunculus pratensis repens hirsutus*.

3. Pale-leaved Crowfoot.

Ranunculus foliis pallidioribus hirsutus.

Plate 2.
Fig. 15.

The root is composed of fibres.

The leaves stand on long hollow footstalks, and are divided into three parts, and each deeply indented: they are large, hairy, and of a pale green.

The stalk is two feet high, upright, firm, and of

a pale green. The leaves on it are small, and deeply divided.

The flowers are large, and of a fine glossy yellow, and have tufts of yellow threads in the middle.

The seeds stand naked in a small roundish cluster.

This greatly resembles the common creeping crowfoot; but its stalks are all erect, and it does not root at the joints. The leaves also are paler and more hairy, and the flowers larger than in that species.

It is frequent in wet places near the sea, and flowers in May.

J. Bauhine calls it *Ranunculus reitius foliis pallidioribus hirsutus*.

4. Tall Crowfoot.

Ranunculus erectus foliis multifidis.

The root consists of fibres, thick, numerous, and whitish.

The leaves that rise from it are large, and of a pale green: they stand on very long footstalks, and are each deeply divided, not into three parts, as those of the three preceding species, but into five, seven, or more; and these are again deeply indented. The whole leaf has a figure nearly rounded.

The stalk is round, firm, upright, and three feet high.

The leaves on it are divided into smaller parts, and fewer than those from the root.

The flowers are numerous, moderately large, and yellow.

The seeds stand in small roundish naked heads. It is common in pastures, and flowers in June.

C. Bauhine calls it *Ranunculus pratensis erectus acris*; and most others have followed him.

5. Little flowered Crowfoot.

Ranunculus hirsutus annus flore minimo.

The root is a tuft of small fibres rising from a little head.

The leaves which rise from it are small, hairy, and of a pale green. They stand on footstalks an inch and a half long, and are cut deeply into three parts, though not down to the stalk. These divisions are also notched at the edges.

The stalks are numerous, slender, weak, and hairy: they lie upon the ground, or rise but weakly from it.

The leaves on them stand irregularly, and are altogether like those from the root, but smaller.

The flowers are very small, and of a faint yellow, and the leaves of the cup frequently appear between them: there is a little tuft of threads in the centre. The flowers are seldom seen entire, the petals adhering but weakly at their base.

The seeds are small, and stand in a little cluster.

It is common on dry banks, and flowers in June.

Plukenet calls it *Ranunculus hirsutus annus flore minimo*. Morison, *Ranunculus arvensis hirsutus annus flore omnium minimo*.

Linnæus thinks this the same with the third foreign species; but it is quite distinct.

6. Wood-Crowfoot.

Ranunculus nemorosus foliis subrotundis.

In many of the crowfoots the leaves which grow on the stalk differ greatly from those that rise from the root; but in none so much as this.

The root is a tuft of long slender whitish fibres, of a less acrid taste than the others.

The leaves that rise from it stand on very long footstalks. they are of a roundish figure, often entire, sometimes divided more or less deeply into five or more parts, and always notched at the edge.

The stalks are tolerably upright, round, weak, and a foot and a half high: they are divided into many branches, and support many flowers.

The leaves on them are cut so deeply, that each appears composed of five or more long and narrow ones. These are of a pale green, and not indented.

The flowers are moderately large, and of a bright yellow.

The seeds follow in a small longish cluster. The flower in this plant is rarely seen entire, for the petals hang very loose, and often one falls before the rest are disclosed.

It is common in shady places, and flowers in June.

C. Bauhine calls it *Ranunculus nemorosus vel sylvaticus folio rotundo*. J. Bauhine, *Ranunculus rotundifolius vernus sylvaticus*.

7. Corn-Crowfoot.

Ranunculus seminis asperis.

The root is composed of many whitish fibres. The leaves that rise from it are small, and very deeply divided: they stand on long footstalks, and are of a pale green.

The stalk is thick, firm, upright, and two feet high.

The leaves stand irregularly on it, and are very deeply divided into numerous, slender, pointed segments.

The flowers stand on the tops of the branches; and are of a bright yellow, moderately large, and have a tuft of threads in the centre.

The seeds stand in a small head; and are flat, large, and prickly.

It is common in corn fields, and flowers in July.

C. Bauhine calls it *Ranunculus arvensis esbinatus*; and he is followed by most others.

8. Small flowered Water-Crowfoot.

Ranunculus aquaticus floribus minimis.

The root is a thick tuft of whitish fibres.

The leaves rising from it are supported on long fleshy footstalks. They are roundish, but deeply divided into three or five parts, and notched at the edges. They are perfectly smooth and glossy, and their colour is a pale yellowish green.

The stalk is very thick, fleshy, round, and divided into many branches toward the top.

The leaves on it are divided into narrower segments than those at the bottom: they are also smooth, and of a pale green.

The flowers are very small: they stand on the tops of the branches, and are of a pale yellow.

The seeds are numerous and small, and they stand in longish heads.

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It is common in watery places, and flowers in June.

C. Bauhine calls it *Ranunculus palustris apii-folio laevis*. J. Bauhine, *Ranunculus palustris flore minimo*.

9. Great Spearwort.

Ranunculus latifolius sive flammeus major.

The root is a cluster of thick, whitish fibres.

The leaves rising from it are a foot long, an inch and half broad, of a pale green, and with scarce any footstalks.

The stalk is thick, fleshy, erect, and three foot high.

The leaves stand alternately, and are eight or ten inches long, and an inch broad, smooth, even at the edges, and pointed at the ends.

The flowers are very large, and of a beautiful yellow. They stand at the tops of the branches, and have a tuft of pale yellow threads in the middle.

The seeds follow in large, naked clusters. It grows in shallow, muddy waters in the Isle of Ely and some other places; but is not common.

C. Bauhine calls it *Ranunculus longifolius palustris major*. J. Bauhine, *Ranunculus folio longo maximus*. Linnæus, *Plinii*.

It is a very stately and beautiful species.

10. Lesser Spearwort.

Ranunculus angustifolius sive flammeus minor.

The root is composed of many thick, whitish fibres.

The leaves rising from it are long and narrow; and they stand on long footstalks.

The stalks are numerous, fleshy, branched, and not altogether erect.

The leaves stand irregularly on them; and are oblong, narrow, even at the edges, and pointed at the end.

The flowers stand at the tops of the branches, and are small, but of a bright yellow.

The seeds stand in little, naked clusters. It is common about waters; and flowers in June.

C. Bauhine calls it *Ranunculus longifolius palustris minor*. C. Bauhine, *Ranunculus longifolius alius flammula*.

The leaves of this species are sometimes notched at the edges; in which condition it has been described by many as a distinct species, under the name of *Ranunculus flammeus ferratus*; but it is only an accidental variety.

11. Ivy-leaved Water Crowfoot.

Ranunculus aquaticus bederæ folio.

The root is a tuft of white, thick fibres. The leaves rising from it are roundish, but dented in three or four places at the edges, and of a pale green.

The stalks rise in the centre of this tuft of leaves, and spread themselves on the surface of the water. They are numerous, weak, irregular in their shape, and jointed. From every joint there grow fibres of new roots; so that the original root and its leaves are presently lost; and the plant propagates itself at large, spreading every way, and rooting every where.

Nº. 2.

The leaves rise from the joints of the stalk, and stand on long footstalks. They are of a triangular figure, but obtuse at the corners, and a little dented; so that they resemble the leaves of ivy. They float on the water or lie upon the mud; and commonly have a black spot in the middle.

The flowers are small and white. They grow on footstalks opposite the leaves; and consist each of five petals, with a tuft of threads in the centre.

The seeds follow in a close, compact, small, round head.

It is common in shallow waters; and flowers in May.

J. Bauhine calls it *Ranunculus bederæ rivulorum se extendens atra macula notatus*. Others *Ranunculus aquaticus bederæ*.

12. Various-leaved Water Crowfoot.

Ranunculus aquaticus foliis rotundis et capillaceis.

The root is a tuft of long and thick fibres, which penetrate deep into the mud, or other bottom of the water.

The first leaves from them are small, and divided into a few long segments; but these wither when the stalks grow up.

The stalks are long, hollow, thick, but weak, and divided into many branches. They are jointed at distances; and they float along the water.

The leaves are of two distinct kinds. Those which are under water are of a dark green colour, and are divided into numerous very fine segments. Those that lie upon the surface are entire, and roundish, but deeply notched. These stand also on long footstalks.

The flowers are large and white. They stand on long stalks, which rise opposite to those of the leaves, and are composed each of five petals, with a tuft of threads with yellow buttons in the middle.

The seed is small, and stands in a round head. It is common in shallow waters; and flowers in June.

J. Bauhine calls it *Ranunculus aquaticus tenuifolius*. C. Bauhine, *Ranunculus aquaticus folio rotundo et capillaceo*. Others, *Ranunculus foliis variis*.

13. Fine-leaved Water Crowfoot.

Ranunculus aquaticus foliis majoribus capillaceis.

The root is a tuft of long and tough fibres.

The first leaves are long, and divided into very narrow segments; so that they much resemble those on the stalks of fennel.

The stalk is two foot or more in length; round, thick, but weak; and very much branched.

The leaves stand irregularly, and are large, but divided into multitudes of fine, narrow segments. Their colour is a deep green; and there are no others. The plant is commonly immersed altogether under water; but if any part of it appear above, the leaves are the same with those below; not various, as in the preceding species.

The flowers are small and white, and have a tuft of threads in the centre with yellow buttons.

The seeds stand in little, round heads, smaller also than the former.

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It is common in running, as well as standing waters; and flowers in June.

Linnaeus considers this only as a variety of the former; but their difference is essential. No one will doubt it who sees them growing together. This never has any of those entire, rounded leaves that float on the surface in the other; and the flowers are always much smaller.

J. Bauhine calls it *Ranunculus aquaticus omnino tenuifolius*. C. Bauhine, *Millefolium aquaticum ranunculi flore et capitulo*.

14. Tender-leaved Water Crowfoot.

Ranunculus aquaticus foliis minoribus capillaceis.

The root is a tuft of small, but long, blackish fibres.

The first leaves are broad, short, and placed on long footstalks, and they are divided into minute and narrow parts.

The stalk rises in the midst, and these leaves soon after wither. This is a foot or more in height, very slender and weak, and has leaves set alternately in a considerable number, and they are very beautiful: they stand on short footstalks, and are composed of a multitude of very narrow parts, which are so placed that the whole leaf is of a rounded figure.

The flowers stand on long footstalks, and they are large and white, with a tuft of yellow buttons supported on short threads in the middle.

The seeds are small, and stand in a little round cluster.

It is common in shallow, standing waters that have a muddy bottom, and is usually altogether under water.

C. Bauhine calls it *Millefolium aquaticum cornutum*. Plukenet, *Ranunculus aquaticus albus circumscriptis tenuissimis divisis foliis*.

15. Fennel-leaved Water Crowfoot.

Ranunculus aquaticus foliis longissimis.

The root is a large tuft of thick, tough, and extremely long fibres.

The first leaves are very large, of a dark green, and divided into numerous narrow segments.

The stalks are numerous; they rise in the centre of these leaves, which soon after wither. They are very long, tender, weak, round, divided into branches, and jointed. They follow the course of the water, and run with it to a great length.

The leaves are very large, and of a dark green. They are long, and divided into many long segments. They resemble those on the stalks of fennel; but they are longer, and the divisions not so numerous.

The flowers are large and white, with a tuft of yellow buttons, supported on short threads, in the centre.

The seeds are small, and stand in a little, round, naked head.

This is distinguished at sight, from all the preceding kinds, by the leaves being divided into much fewer, and those vastly longer segments.

It is common in large rivers; and flowers in June.

C. Bauhine call it *Millefolium aquaticum foliis feniculi*, *Ranunculi flore et capitulo*. Others, *ranunculus aquaticus foliis feniculaceis*.

DIVISION II. FOREIGN SPECIES.

1. White-flowered tall Crowfoot.

Ranunculus aconiti folio flore albo.

The root is composed of a multitude of thick and long fibres, growing from a small head.

The first leaves stand on footstalks four or five inches long, and are of a pale green colour when they first rise, but duskier afterwards. They are large, and deeply divided into three or five parts. These are broad, oblong, pointed and serrated at the edges.

The stalk is round, thick, fleshy, firm, and three foot high.

The leaves stand irregularly on it, and are like those from the root; but smaller, of a dusky green, pointed and serrated.

The flowers stand at the tops of numerous branches, into which the stalk divides in the upper part. They are large and white.

The seeds stand in little, roundish, naked heads. The leaves of this plant have not the fiery sharpness to the taste of many others.

It is a native of the Alps and other mountainous parts of Europe, and flowers in June.

Clusius calls it *Ranunculus montanus*. Others, *Ranunculus montanus aconiti folio flore albo*.

2. Purple Crowfoot.

Ranunculus birsutus flore purpureo.

The root is composed of a great tuft of fibres; they are very long, white, and firm.

The first leaves stand on long, hairy footstalks. They are large, of a rounded form, but divided deeply into five, seven, or nine segments. They are hairy, of a pale green, and serrated.

The stalk is a foot and half high; and is weak and slender; hairy, and of a pale green.

Towards its top there stands a leaf of a particular form surrounding it, without a footstalk, and divided into several, narrow, serrated segments, pale and hairy.

From this part the stalk divides into three or four branches, which are short, and slender, and each furnished with a little leaf or two, and with a very beautiful flower on its top, which is large, and in part purple, in part of a snow white.

The seeds stand in little naked clusters.

It is a native of Germany, and flowers in June.

C. Bauhine calls it *Ranunculus montanus, birsutus purpurascens flore*.

3. Low Crowfoot with prickly seeds.

Ranunculus annuus semine echinato.

The root is composed of a great cluster of slender fibres connected to a small head.

The leaves rising from it are supported on slender footstalks, hollowed at the bottom: they are small, of a figure between rounded and triangular, and divided deeply into three parts. They are also notched all about the edges.

The stalks are round, weak, jointed, and ten inches or a foot long.

The leaves grow irregularly on them, and resemble those from the root.

The flowers are small, and yellow, with a tuft of pale threads.

The seeds stand in a little naked head; and are large and prickly.

It is a native of the warm parts of Europe, and the east; and loves damp ground.

J. Bauhine calls it *Ranunculus palustris echinatus*. Others *Ranunculus echinatus creticus*.

4. Broad nervous-leaved Crowfoot.

Ranunculus lato et nervoso folio.

The root is composed of a cluster of very thick fibres.

The first leaves are five inches long, two broad, perfectly entire, and blunt at the end, with the ribs running lengthwise; so that in all respects they resemble those of plantain.

The stalk is single, round, firm, and a foot high.

The leaves stand alternately upon it, and surround it at the base. They resemble those from the root in all respects, but that they are smaller.

Toward the top the stalk divides into two or three branches, and on the summit of each is a flower. This is very large, of a snow white, and has a tuft of yellow threads in the centre.

The seeds are small, and stand naked in a little cluster.

It is a native of the Pyrenean mountains; and flowers in June.

C. Bauhine calls it *Ranunculus montanus foliis plantagineis*. C. Bauhine, *Ranunculus Pyrenæus foliis sublongis non lacinatis flore albo*.

5. Broad-leaved Crowfoot.

Ranunculus latifolius radicibus crassis.

The root is composed of a great many long, thick pieces, which form a large tuft.

The leaves that rise from it stand on thick, fleshy footstalks, three inches long, and are broad, divided deeply into five or more parts, and serrated round the edges.

The stalk is thick, round, fleshy, and a foot or more in height.

The leaves stand irregularly on it, and are divided into many narrow, indented segments.

The flowers are large, and yellow; and they have a tuft of yellow threads in the centre.

The seed follows in a small head, and is large and naked.

It is a native of the east, and flourishes particularly in Crete. It flowers in July.

C. Bauhine calls it *Ranunculus asphodeli radice Creticus*. Clusius, *Ranunculus Creticus latifolius*.

This *ranunculus* whose root approaches to the tuberous kind, naturally leads us to that which has a regularly tuberous root, and which makes such a fine appearance in our gardens.

6. Scarlet Crowfoot.

Ranunculus foliis divisis flore rubente, radice tuberosa.

This is a beautiful flower in its plain, natural appearance; and when cultivated, it shews an

amazing variety, the flower becoming double, and having all the degrees of colour from the deepest to the palest red, and to white and yellow.

The root is regularly tuberous. It is composed of several oblong or oval, thick pieces, intermixed with fibres; or sometimes wholly without them.

The leaves that rise from it are supported on long footstalks; and are, some of them more, some of them less, divided. The first that appear are commonly oblong, and only indented deeply at the edge. The succeeding ones are divided more or less deeply into three parts; and those segments are notched and pointed.

The stalk is round, firm, and a foot high; sometimes it rises single and continues the whole way so: at other times it is branched.

The leaves that stand on it are formed of three parts, two disposed in the manner of wings, and one placed at the end; and each of these parts is again divided into three segments and notched round the edges.

At the top of the stalk stands a single flower, composed of five leaves, rounded, and very large and beautiful. The usual colour of this is a bright scarlet; but sometimes it is yellow or white. We owe to the art of gardening the other numerous variations.

It is a native of Asia, where it covers whole fields wild, and flowers in spring.

C. Bauhine calls it *Ranunculus radice grumosa ramosus*. Others, *Ranunculus Asiaticus radice grumosa*.

Most of the botanical writers have divided this according to the colour of the flower, and other accidents, into several kinds; but they are accidental varieties, the plant in every one of these appearances being the same.

The *crowfoots* in general are acrid and caustick. Some of them are less so than others; and there are some that experience has shewn to be poisonous. The greater and lesser spearwort are of this last kind, as also the round-leaved small flowered kind: as to the others, they have been banished from any use on the account of these: but we shall see in this an instance how rashly we condemn some plants, as well as negligently overlook others.

The acrid quality of the *crowfoots* in general resides in their juice. Some, as has been observed, have little of it; and these may be taken internally as fresh gathered; and many of the others becoming mild when dried. A tincture may also be made from some of the common species that has no bad qualities.

In the first state, the roots and leaves of the round rooted kind may be used outwardly with success on many occasions.

Their juice takes away warts.

The roots and leaves bruised together, and applied to swellings, will act as a caustick, and make way for the instruments of surgery.

In violent headaches, when the pain is confined to one spot, they have the greatest effect imaginable. A plaister is to be laid on, with a hole in the middle. A small quantity of the herb and root bruised, and wet with the juice, is to be laid on the bare place; and this is to be covered with a larger plaister. In this manner of application a few leaves will do the business. Care must be taken

taken not to let it come near the eyes, for it will cause violent inflammations.

In the gout the bruised leaves and roots have been used with great success. We have also accounts of cures by them in the plague, by raising blisters with them, and keeping them open in the manner of issues near buboes in the groin, or elsewhere.

The distilled water of the roots, and a tincture made from them in wine, are recommended also in the plague internally.

The beggars frequently make sores on their legs with this plant, to promote commiseration; and it is easy to know that what could do this might be applied usefully on some occasions.

An infusion of the leaves of the *ivy-leaved water-crowfoot* in wine, with alder-tops and sage, is recommended strongly by some in the dropsy, and other disorders arising from obstructions of the viscera, and in the febrile.

G E N U S XIII.

PILEWORT.

CHELIDONIUM MINUS.

THE flower is composed of several petals, and has a three-leaved cup, which falls with it.

The seeds stand in a small naked cluster; and the leaves are roundish, and heart-fashioned.

Linnaeus places this among the *polyandria polygynia*, and makes it a species of crowfoot. He calls it *crowfoot*, with heart-fashioned, angulated, and petiolated leaves; but the cup consisting of three leaves, distinguishes it from the crowfoot, whose cup has five; nor to mention the greater number of petals in the flower. It is a plant also of considerable virtues, which are recorded of it under the names of *pilewort* and *chelidonium minus*: wherefore there is use in preserving the distinction.

What is called greater celandine, is a plant of an altogether different class, as will be seen hereafter.

Linnaeus, who makes this a species of ranunculus, gives for the first character of that genus, a cup composed of five leaves: therefore, according to his original establishment of the genus, this plant does not belong to it. He gives, by way of an exception at the end, this among others; and there establishes the essential character of the genus to be the nectarium of the flower; the rest of the parts being all inconstant.

Let us examine this conduct in the eye of reason, and take this as an example of the foundation there is for that fashionable system.

Linnaeus gives a description of the several parts of the cup, flower, and fruit, of the ranunculus; which description he calls the generical character: then among the species of ranunculus he places *pilewort*, which does not agree with that character. Indeed it contradicts the two most absolute and obvious articles. He says the ranunculus has a cup composed of five leaves, and a flower composed of five petals; but *pilewort* has a cup of three leaves, and a flower of more numerous petals. It is thus distinguished by nature, and it has always been distinguished by name; and has distinct virtues. Why therefore should it be thus confounded with crowfoot? Linnaeus perceives afterwards, that *pilewort* does not agree with his characters of that genus: then he makes an observation, which is, that all the parts are inconstant, except that there is a nectarium about the unguis of each petal. This, he says, is the essential mark. if so, his whole generical character is set aside. He himself acknowledges it to be useless; why then is it continued? We have shewn it to be false: therefore it ought to be rejected.

Beside these obvious things in which the *pilewort* differs from his established character of ranunculus, there are others, as the pointed ends of its petals, and the like lesser articles. These I do not name, the former being so evident. I have been the more particular on this head, as it may stand in all respects for an instance of the wrong management brought into the science by this new method.

There is but one known species of *pilewort*, and that is a native of Britain.

Common Pilewort.

Cheledonium minus.

The root is composed of a great many little tuberous pieces, of the bigness of a barley-corn, with fibres among them: they are brownish, whitish, or redish on the outside, and white within.

The leaves stand on long footstalks; and are of a roundish form, some more some less cornered or angulated, but all indented in the manner of a heart, for the reception of the footstalk: Those which rise first are rounder, the others more cornered. They are of a fine green, and frequently have a spot of whitish or blackish in the middle.

The stalks are short, and lie upon the ground:

they have numerous leaves on the lower part, and they send up long slender naked footstalks for the flowers.

These are yellow, large, and beautiful: one stands at the top of each stalk, and is composed of a great number of narrow sharp-pointed petals in a three-leaved cup, and has a tuft of threads in the centre.

The seeds stand naked in a small cluster.

It is common under hedges, and flowers in March.

C. Bauhine calls it *Cheledonia rotundifolia minor*; others in general, *Cheledonium minus*.

We call it *Figwort*, *pilewort*, and *Small celandine*. Sometimes it grows much larger in leaves and flowers, and sometimes the flowers are naturally double. In these conditions it has been de-

scribed

scribed as different species by authors; but they are only accidental varieties.

The roots of *pilewort* are cooling and softening. They are an excellent remedy in the pain of the piles; bruised, and applied to the part: hence they obtained the name. A decoction of them in red wine is also excellent in the same disorder when they bleed too much.

A cataplasm made of the roots and leaves bruised, and laid on scrophulous tumors, has been known to do great service.

Inwardly a strong decoction is good in the jaundice.

Having thus seen the form and virtues of this

plant, the reader will be able to pass a more perfect judgment on that method, which proposes making it a species of crowfoot.

Here is an herb different in form, shape, and virtues, from crowfoot, and distinguished by the most obvious and essential parts, on a nearer inspection. Can it be reasonable, therefore, when the flower and its cup shew a manifest difference, we should look for a hole in the bottom of the petals, to unite this and the crowfoot? Or can it be proper to join together a plant with a cooling root, and a whole series of others which are of a burning and caustic nature? This is confounding what Nature has widely separated; and we see she has given marks enough of that distinction.

G E N U S XIV.

ARROWHEAD.

SAGITTARIA.

THE flower consists of three petals, and has a three-leaved cup: the seeds stand in a round naked cluster: the leaves have long footstalks, and are shaped like the bearded head of an arrow. There are two sorts of flowers on this plant, male and female. The male stand uppermost on the stalks. Their general form is alike; but in the centre of the male flowers there are only threads topped with buttons: in the female, none of these but the rudiments of the future seeds, with their appendages, a kind of filaments for the reception of the dust from the buttons.

Linnaeus places this among the *Monœcia Polyandria*, separating it far from the other naked seeded plants; and joining it with the oak, hazel, and walnut tree. The reason of this is, that there are the different male and female flowers. His explanation of the class of *Monœcia* is this: It consists of plants, in which the males and females live in the same house, but sleep in different beds; that is, there are male and female flowers on the same plant.

This is an instance how unnatural the method of that author is. In our plain course, in this part marked out by Mr. Ray, the *arrowhead* is joined to those plants to which its flowers and seeds they it naturally belongs; and the mentioning the separate flowers in the account is sufficient.

DIVISION I. BRITISH SPECIES.

1. Common Arrowhead.

Sagittaria vulgaris.

The root is large, thick, white, and hung with long fibres.

The first leaves are long, narrow, and grassy; and these, till better known, were mistaken for a separate plant; and called the great-rooted water grass.

The following leaves are those which characterise the plant. They are placed on very long footstalks, reaching from the bottom to the surface often where there is a great depth: these are thick, soft, spongy, and of an obtusely angulated form. The leaves are large, and formed like the bearded head of an arrow, tolerably sharp at the point, and at the two beards. They are of a glossy surface, and fine green.

The stalks rise two or three together from the centre of the cluster of leaves: they are naked two, three, or four feet high, thick, and spongy, and of a smooth surface.

The flowers stand on long footstalks, and are large and white: they grow three or four from the same place, surrounding the stalk.

The seeds follow the female, which are the

lower flowers, and stand in large roundish naked clusters.

It is common in waters, and flowers in July.

All authors call it *Sagittaria*, and *Sagittaria aquatica*; but they idly divide it into a larger and smaller kind, from the difference of size in the leaves: there is also another variety, which they describe as a distinct species, under the name of the *narrow-leaved smaller arrowhead*. All these grow promiscuously together, and are no more than accidental changes; but there is one small species, the form of whose leaves and flowers shews it to be distinct.

2. Little Arrowhead, with pointed leaves, and large flowers.

Sagittaria minor foliis acutioribus flore majore.

The root consists of a great cluster of whitish fibres.

The leaves that rise first are narrow, short, and deeply ribbed. They have no footstalks, and are in some degree grassy.

The leaves that follow these rise in a little cluster: their footstalks are small and firm; and they are very narrow, and very sharp-pointed, of a pale green, and highly ribbed.

* Mares habitant cum seminibus in eadem domo, sed diverso thalamo.

The stalk is naked and slender.
The flowers are large, white, and beautiful.
The seeds stand naked in a little round button.

It is common in shallow waters in the north of

England, and has been found on the Thames shore by Lambeth. It flowers in August.

Plukenet calls it *Sagitta aquatica omnium minima*.

DIVISION II. FOREIGN SPECIES.

1. Blunt-leaved Arrowhead.

Sagittaria aquatica foliis obtusis fructu parvo.

The root consists of a large, irregular lump, with a great number of long fibres.

The leaves stand on long footstalks, are of the arrowhead shape, but very broad at the base, and blunt at the end.

The flowers are large and white.

The seeds stand naked in a small round cluster.

It is a native of Asia, and flowers in August.

Rheede calls it after the Asiatick name, *Culitamarra*. Plukenet, *Sagittaria foliis planta fructu glomerato monoplyrene*.

2. Trifoliate Arrowhead.

Sagittaria foliis ternatis.

The root consists of a great number of fibres about a fleshy head.

The leaves stand on long, thick, and spungy footstalks, three on each: they are very long, narrow, and of a pale green, but of the true arrowhead form.

The stalks are long, weak, spungy, obtusely angulated, and naked.

They are furnished toward the tops with large and beautiful flowers.

The seeds follow in small naked heads.

It is a native of China and the East Indies.

Petiver calls it *Sagittaria Chinenensis foliis ternis longissimis*.

The common arrowhead is cooling; but we have no particular account of its virtues.

GENUS XV.

WATER PLANTAIN.

PLANTAGO AQUATICA.

THE flower is composed of three petals, and has a three-leaved cup, which remains after it is fallen. The seeds stand together in a little naked head, and their outer covering is loose.

Linnaeus places this among the *Hexandria polygynia*, and calls it *alisma*. In this genus he joins with it the plant called *starry headed water plantain*; which, though commonly called by the same general name, is properly separated, as having the seeds succeeding each flower contained in fix absolute capsules; and the *alisma* of Dillenius, in which the seeds are contained in numerous small and obtuse capsules.

DIVISION I. BRITISH SPECIES.

1. Narrow-leaved Water Plantain.

Plantago aquatica angustifolia.

The root is a great thick tuft of fibres.

The leaves rise in a large cluster, and are very long and narrow: they stand on footstalks of four or five inches long; they are pointed at the end, distinguished by three large ribs running lengthwise, in the manner of the *plantain*; and are of a fine bright green.

The stalks rise from the centre of these leaves; and are slender, weak, and a foot high, and have no leaves on them.

The flowers stand about the tops; and are small and white, each composed of three petals, with a few threads in the centre.

The seeds follow in round, small, rough heads. It is common in standing waters, and flowers in June.

C. Bauhine calls it *Plantago aquatica angustifolia*. J. Bauhine, *Plantago aquatica minor*.

2. Broad-leaved Water Plantain.

Plantago aquatica latifolia.

The root consists of a great tuft of fibres, from which there rise a cluster of stalks to support the leaves: the bottoms of these being broad and close compacted, form a kind of round head; whence the fibres grow.

The leaves stand on these footstalks, which are long, hollowed, weak, and spungy: they are large, broad, and oblong, blunt at the end, undivided at the edges, and of a smooth surface, and fresh green colour; with large ribs running lengthwise, in the manner of *common plantain*.

The stalk is naked, thick, smooth, and three feet high: there grow a multitude of branches from it in a regular order; so that it has from the middle upwards a kind of conic shape.

The flowers stand on the tops of the footstalks that rise from several parts of these: they are

final

small and white; and they are extremely numerous.

The seeds stand three together, in a little head after every flower.

It is common in waters, and flowers in June.

C. Bauhine calls it *Plantago aquatica latifolia*. Others, *Plantago aquatica major*.

The leaves of this are cooling, and, as it is said, repellent. They are good in the piles, and are used to lay on womens breasts, to dry up the milk. Two varieties of this plant have been described as distinct species; the one with long and narrow, the other with very large and broad leaves.

DIVISION II. FOREIGN SPECIES.

1. Blunt-leaved water Plantain.

Plantago aquatica foliis obtusis.

The root is composed of numerous fibres.

The leaves stand on considerably long footstalks; and are large, broad, and of a fine fresh green. They are divided at the stalk in a heart-like manner, and are blunt at the end.

The stalks are thick, weak, and branched.

The flowers are small and white, and are each composed of three blunt ended petals.

The seeds stand naked in a small head.

It is a native of Virginia, and flowers in autumn.

Vaillant calls it *Damasonium ramosum folio cordiformi*. Morrison, *Sagittaria Virginiana obtusore latefolia floribus minoribus albis*.

It does indeed partly resemble the sagittaria, and partly the *water plantain*; but the small knob of seeds refers it to this genus.

GENUS XVI.

MEADOWSWEET.

ULMARIA.

THE flower consists of five petals, and stands in a cup composed of a single leaf divided into five parts. The seeds are seven after each flower, and are twisted.

Linnaeus places this among the *icofandria polygynia*; and in his earlier works makes it a species of *filipendula* or *dropwort*: in his later, he destroys this genus, and makes both the *dropwort* and *meadowsweet* species of *spiraea*.

They are distinct in nature from *spiraea*, and mutually from one another. This new method therefore, which was intended to render botany distinct, we see, increases the perplexity that attended it, and creates confusion.

Spiraea does not belong even to the same natural class with these two genera; for its seeds are contained in capsules, whereas those of *dropwort* and *meadowsweet* are naked. Therefore, although they are joined in a method, the classes of which are established upon the number of filaments in the flower, they are far separated by nature in the fructification.

Their difference one from another is not so striking, but it is sufficient: the distinctions of genera are subordinate to those into classes, and should be founded on lesser particularities.

The *meadowsweet* has seven twisted seeds after every flower, and has the leaves irregularly pinnated. The *dropwort* has twelve seeds after every flower, and they are not twisted, and its leaves are regularly pinnated: these are sufficient distinctions. These Linnaeus knew, for he has named them; therefore he should have used them. Thus on many other occasions this author may be convicted out of his own words, of knowing that his method was defective and erroneous.

There is only one species of *meadowsweet* a native of Britain.

DIVISION I. BRITISH SPECIES.

Meadowsweet.

Ulmara vulgaris.

The root consists of a vast quantity of hard, tough, long fibres, of a redish colour, rising from a small longish head.

The leaves stand on moderately long footstalks, and they are very beautiful in shape and colour: they are pinnated: each composed of three or four pairs of pinnæ, with a large, irregular leaf at the end. They are notched at the edges: their colour is a bright green on the upper side, a greyish or whitish underneath; and they are hard to the touch.

The stalk is firm, redish, upright, and

branched. It grows to four or more feet in height, and is strongly striated.

The leaves stand irregularly on it, and are like those at the bottom, but have fewer pinnæ.

The flowers are small and white, and stand in long, irregular tufts at the tops of the stalks.

The seeds are greenish, twisted, and striated. It is common by waters, and flowers in June.

J. Bauhine calls it *Ulmara*. C. Bauhine, *Barba capra floribus compatis*. Some, *Regina prati*.

It is celebrated extremely as a wound herb; and by some is recommended internally as a sudorific. The flowers give a pleasant flavour to liquor. Mixt with mead they give it the taste of the Greek wines.

DIVISION

DIVISION II. FOREIGN SPECIES.

Trifoliata Meadowweet.

Ulmaria trifoliata.

Plate 4.
Fig. 2.
The root is a great tuft of fibres rising from a small head.

The first leaves stand on long, redish footstalks, and are large, of a pale green colour, and firm structure. They in some degree resemble those leaves of the common meadowweet that grow on the upper part of the stalk. They are composed of three parts or three separate leaves,

which may be called one pair of pinnae, and an end leaf.

The stalk is firm, upright, and five foot high. Its leaves resemble those from the root, but they are smaller.

The flowers are large, and white.

The seeds are twisted.

It is a native of North America.

Morison calls it *Ulmaria Virginiana trifoliata floribus candidis amplis longis et acutis*. Others, *Ulmaria major trifoliata Virginiana*.

G E N U S XVII.

DROPWORT.

FILIPENDULA.

THE flower is composed of five petals, and stands in a cup divided into five parts. The seeds following each flower are twelve in number, and are erect. Linnæus, we have just shewn, joins this and meadowweet with the spiræa among his *icosandria polygynia*.

There is but one known species of *dropwort*, and that is a native of Britain.

Dropwort.

Filipendula vulgaris.

Plate 4.
Fig. 3.
The root consists of a vast tuft of fibres, to which there are connected in many places large fleshy lumps: these are of a dusky colour on the outside, and white within.

From the head of this cluster rise ten or a dozen leaves of a very beautiful and regular form. They have very short footstalks, and are regularly pinnated, each having six, seven, or more pairs of pinnae, with an odd leaf at the end, all uniform, oblong, and regularly dented round the edges.

The stalk rises in the midst of these, and is upright, round, firm, and two or three foot high.

The leaves stand irregularly on it, and are like those at the bottom.

The flowers are white, and have a large tuft of yellowish threads in the middle.

The seeds stand in a little, naked head.

It is not uncommon in dry pastures, and flowers in autumn.

C. Bauhine calls it *Filipendula vulgaris*. J. Bauhine, *Filipendula*. We, *Dropwort*. All, names

taken from the tuberous parts of the root, which resemble so many great drops, and hang by threads.

The root of *dropwort* is attenuant in the viscera; but has a slight astringency in the bowels. It works by urine, and brings away gravel. For this use it is best taken in decoction.

It is good in epilepsies and other nervous complaints. To this purpose a tincture made of it in wine is the best form of giving it; and it should be made with three ounces of the dried root to a quart of the liquor.

It has also been found serviceable against the fluor albus; and for this is best given in powder. In this form fifteen grains is a proper dose.

In repeated doses in this last form it is said to have cured dysenteries. It is one of those remedies of which our fore-fathers were very fond; and which we have very unreasonably neglected.

C. Bauhine and others have described what they call a lesser species of *dropwort*; but according to their own accounts, this differs in little but size, and is evidently a variety.

G E N U S XVIII.

MALLOW.

MALVA.

THE flower is composed of five petals, which join together at the base; and stands in a double cup: the outer of these composed of three leaves; the inner one, of a single leaf divided into five parts, and both remain with the seeds. These are gathered into a round, flat head, and have the outer covering loose.

Thus far the character of the genus comprehends with the several kinds of *mallow*, those of *marsh mallow* and *vervain mallow*. To distinguish the *mallow* from these, we are to add, the leaves are entire, of a roundish figure, and green.

The reason of this addition to the character of the genus is, that the *althæa*, and *alcea*, *marsh*, and *vervain mallow* have the same flowers and seeds; but the leaves in the *marsh mallow* kinds are oblong, and white: and in the *vervain mallow* they are deeply divided. They are very nearly allied, and are included among the *monadelphica polyandria* by Linnæus.

DIVISION

DIVISION I. BRITISH SPECIES.

1. Common Mallow.

Malva vulgaris.

Plate 4.
Fig. 4.
The root is long, large, white, and furnished with many fibres.

The leaves rising from it stand on long footstalks, and are of a roundish form, but deeply waved, or sinuated and notched.

The stalk is round, firm, upright, and a yard high: the leaves on it resemble those from the root, but are smaller and more waved.

The flowers are large, and of a beautiful red. They stand in great numbers at the tops of the stalk and its branches.

The seeds are collected into a round, flat cluster, and preserved by the cup.

It is common in all waste places, and flowers throughout the summer.

C. Bauhine calls it *Malva sylvestris folio sinuato*. Others, *Malva vulgaris*.

2. Little white-flowered Mallow.

Malva pumila flore albo.

Plate 4.
Fig. 5.
The root is long, and white, and has many fibres.

The leaves rise in a tuft or cluster, and have moderately long footstalks. They are of a roundish figure, and pale green colour, and are less sinuated than those of the common *mallow*.

The stalks are numerous, and they lie upon the ground, though sufficiently thick, and firm.

The leaves on them are like those at the bottom, but smaller.

The flowers stand on short footstalks, and are large, and of a pale whitish colour, sometimes with a few streaks of purplish, and sometimes a faint tinge of the same colour throughout.

The seeds stand in little round clusters.

It is common by way sides, and flowers all summer.

C. Bauhine calls it *Malva sylvestris folio rotundo*.

3. Small purple-flowered rough-seeded Mallow.

Malva flore minore purpureo seminibus rugosis.

The root is long, white, and hung round with many fibres.

The leaves stand on long, slender footstalks, and are little, of a roundish figure, but deeply sinuated, and of a dusky green.

The stalk is thick, tolerably erect, and about a foot high.

Its leaves are altogether like those from the root, but smaller, and on shorter footstalks.

The flowers are numerous, very small, and of a blueish purple.

The seeds follow in a small, rounded, flat cluster, and are rough to the touch.

It is not common with us, but grows in Kent and Sussex, and some other places in barren ground. It flowers in June.

Boerhaave calls it *Malva sylvestris foliis sinuatis minoribus seculis minimis Anglica*. Ray, *Malva minor flore parvo caeruleo*.

4. Tree Mallow.

Malva arborea.

The root is very large, woody, white, long, and full of fibres.

The leaves that rise from it stand on long footstalks, and are of a rounded figure, deeply sinuated and notched; and of a pale green colour, and velvety softness to the touch.

The stalk rises in the midst of the cluster of them, and they presently after fade and wither away.

This is six or seven foot high, and very thick, firm, and woody.

The leaves stand irregularly on it on long footstalks, and are so much sinuated that they frequently appear in some degree curled.

The flowers are small, and whitish, with a pale blush of purple.

The seeds stand in round, flat clusters.

It is not unfrequent about our sea-coasts, and flowers in July.

Merret calls it *Malva arborea marina nostras*.

DIVISION II. FOREIGN SPECIES.

1. Curled Mallow.

Malva foliis crispis flore albo.

Plate 4.
Fig. 6.
The root is long, white, and thick.

The leaves rising from it stand on long footstalks, and are large, rounded, but a little oblong, and very beautifully curled about the edges. If this were the sole distinction from the common kind, we should say culture or accident gave it, and should make it a variety; but there are others that shew it to be a distinct species.

The stalk is firm, upright, and six, seven, or eight foot high, thick enough to support itself very erect; but not nearly so thick as in the *tree mallow*.

The leaves on it are somewhat more oblong than those from the root.

The flowers stand in clusters about the insertions of the footstalks of the leaves: they have very short pedicels, and are of a pale whitish colour.

Nº 3.

The seeds stand in a rounded, flat head.

It is a native of the south of France, whence we have brought it into our gardens. It flowers in August.

C. Bauhine calls it *Malva foliis crispis*. J. Bauhine, *Malva crispa*.

2. The Hollyhock.

Malva rosea.

Plate 4.
Fig. 7.
The root is long, white, thick, and hard, and has about it a vast quantity of fibres.

The first leaves are roundish, and curled about the edges. They are of a pale green, somewhat hairy, and stand on long footstalks.

The stalk is seven or eight feet high: the leaves stand irregularly on it, and are large, and placed on long footstalks. They are of a more oblong figure

figure than those at the root, and of the same pale colour.

The flowers have short footstalks, and grow all up the stalks from the middle upwards: they are very large, and naturally of a pale red colour, consisting of five segments, joined at the base, as in the common mallow.

The seeds follow in large, round clusters also as in the mallow.

It is a native of Spain, and has thence been brought into our gardens, where culture has changed the colour and form of the flowers, rendering them double, and otherwise very various.

C. Bauhine calls it *Malva rosea folio subrotundo*. J. Bauhine, *Malva rosea sive bortenfis*.

3. Fig-leaved Hollyhock.

Malva rosea foliis digitatis.

The root is long, thick, white, and bushy, with a multitude of fibres.

The leaves rising from it stand on long, green, hairy, tender, footstalks: they are very large, of a pale green, and deeply divided into five, seven, or more parts. Their whole figure is oblong, but approaching to round, and the segments are cut in very deep.

The stalk rises in the midst of these, and is round, firm, upright, thick, and branched. Its leaves resemble those from the root, but they are more deeply divided, commonly down to the middle rib, or very near it.

The flowers grow on short footstalks on the upper part of the stalks and branches. They are very large, and usually of a pale yellow: but in the colour there is the same variations as in the other; the art of the gardener rendering it deeper and paler, and making the flower single or double.

G E N U S XIX.

MARSHMALLOW.

ALTHEA.

THE flower is composed of five segments, joined at the base, and stands in a double cup. The seeds follow in a round, flattened cluster. The leaves are oblong, white, and soft to the touch. This is one of the *monadelphica polyandria* of Linnæus, as the former and succeeding genus.

DIVISION I. BRITISH SPECIES.

Marshmallow.

Althea vulgaris.

The roots are long, white, and furnished with very large fibres.

The first leaves are small, and of an oval figure; a little notched about the edges: they stand on long footstalks, and are of a pale green, and very soft.

The stalks rise several together in the midst of the cluster, and are very strong, upright, hard, and firm. The leaves that rise from the root fade at their appearance, and are soon gone.

The seeds stand in round, flattened clusters, and are large and compressed.

It is a native of Spain and other warm parts of Europe, and flowers in July.

C. Bauhine calls it *Malva rosea folio ficus*.

Various-leaved Mallow.

Malva foliis rotundus et angulatis.

The root is small, long, and white, and has a great many fine fibres.

The leaves rise from it in a small tuft, and are of a roundish figure, a little dented at the stalk, and come to a small point at the end. They stand on long, tender, hairy footstalks, and are of a pale green above, and white underneath, and serrated round the edges.

The stalk rises in the midst of this tuft, and is slender, weak, hairy, of a pale green, and a foot and half high, with numerous branches.

The leaves standing on it are oblong, broad at the base, sharp pointed, and often divided into three parts.

The flowers are large, and of a deep purple, and they stand on the tops of the branches. The seed comes after in round, flat heads.

It is a native of Spain, and flowers in July.

C. Bauhine calls it *Malva folio vario*. J. Bauhine, *Malva trimetris flore cum unguibus purpureis*.

The common mallow is cooling and diuretick: it partakes of the virtue of the *marsh mallow*, to be next described, but in an inferior degree; and the several other species here described possess the same qualities, but they are of less value.

It is softening in cataplasms, and is a good ingredient in clysters. The fresh root used in a strong decoction is excellent in stranguries, and heat of urine, and the gravel. The root of the little white flowered kind makes a pleasanter drink for this purpose, and has much the same virtues.

The virtues of *marshmallow* are the same with those of the *common mallow*, but it has them in a greater degree. The root is pleasant, and gives water a thick mucilaginous consistence, with an agreeable softness: wherefore the decoction or infusion are the best forms of giving it.

It is emollient and diuretick. Taken in the way of tea it is excellent against the gravel: or in a stronger decoction, in the worst complaints of that kind.

Outwardly used it is emollient and discutient. A syrup and an ointment are kept in the shops in which *marshmallow* root is a great ingredient, and which have their name from it; but a common infusion has more virtue by far than the syrup; and generally a pulvise of the fresh root, white bread and milk, will do better outwardly than the ointment.

Beside these, which are its virtues most regarded, it is excellent in asthma and against tickling coughs; and also in erosions of the bowels and dysenteries. In both these cases it acts upon the same principle, softening and blunting the acrimony of the humours by its soft mucilaginous juice.

A decoction of *marshmallow* root alone, is excellent against the heat of urine attending gonorrhæas.

We have observed that the first leaves of the *marshmallow* are rounder than those on the stalks: sometimes the whole have that appearance, and this principally from too wet a situation. In this condition the plant has been considered by Plukenet as a distinct species. He calls it *Althea vulgaris similis folio retuso brevi*: but this is nothing more than a variety.

DIVISION II. FOREIGN SPECIES.

Great-flowered Marshmallow.

Althea flore magno.

The root is composed of a large head, and a vast quantity of white, thick fibres.

The first leaves are large, broad, obtuse, and approaching to round, but sinuated at the edges, and terminating in a kind of broad, blunt point. They stand on short footstalks, and are of a whitish green.

The stalks are numerous, thick, firm, and five foot high: they rise from the centre of the tuft of leaves, and are of a whitish green, and divided into many branches.

The leaves on these are broad and oblong, serrated at the edges, and sharp at the points. They stand on long footstalks, and have a velvety softness.

The flowers stand at the extremities of the branches, and are very large and beautiful. They very much resemble hollyhock flowers, and are naturally of a pale flesh colour, but vary by culture, and become of a deeper red.

The seeds stand in a round, flat, naked head. It is a native of Africa, and flowers in July. Cornutus calls it *Althea rosea peregrina*, and most others follow him.

G E N U S XX.

VERVAIN MALLOW.

ALCEA.

THE flower consists of five large segments joined at the base. The seeds stand in a rounded, flat cluster. The leaves are deeply divided.

The *alcea* is one of the *monadelphica polyandria* of Linnæus. Its difference from the *marsh* and *common mallow* is principally in the leaves; but it is a distinction so long preserved and so familiarly known that it may be retained.

DIVISION I. BRITISH SPECIES.

Vervain Mallow.

Alcea vulgaris.

The root is long, large, woody, perennial, and white.

The leaves that rise from it are of a rounded form, deeply sinuated at the edges, but not divided into small segments as the others. These rise in a cluster: they are supported on moderately long footstalks, and are of a beautiful green.

The stalks rise among these: they are numerous, round, firm, upright, and of a pale green: they are well furnished with leaves, and those extremely beautiful. They keep the rounded general form of those from the root, but they are

divided deeply into small and elegant segments. These are of a paler colour than those from the root.

The flowers are very large, and of a beautiful pale red.

The seeds stand in rounded and flat heads. It is common in pastures, and flowers in May.

C. Bauhine calls it *Alcea vulgaris major*. J. Bauhine, *Alcea vulgaris*.

The leaves of this plant are frequently curled at the edges. This happens especially when it grows in very dry places; and it has been described in this condition as if a distinct species, under the name of *Alcea tenuifolia crispa*.

DIVISION II. FOREIGN SPECIES

1. Finger'd-leaved Vervain-Mallow.

Alcea foliis digitatis.

Plate 1. Fig: 13.
The root is large, thick, white, and spreading.

The leaves that rise from it are large, of a roundish form, but deeply cut in five places: they stand on long footstalks, and are of a pale green.

The stalks are numerous, firm, and woody: they rise to six feet in height, and are of a yellowish green, and rough to the touch.

The leaves on these are numerous, and very beautifully divided into five parts, in a fingered manner: they stand on rough footstalks, and are of a pale green.

The flowers are numerous and large, and are of a very beautiful bright red: the seeds stand in rounded fat clusters.

It is a native of Italy, and flowers in August.

C. Bauhine calls it *Alcea cannabina*. J. Bauhine, *Alcea pentaphylli folio five cannabina*.

2. Hairy Vervain Mallow.

Alcea hirsuta.

Plate 4. Fig: 14.
The root is long, white, and thick, and has many fibres.

The leaves that rise from it are rounded, but have three visible indentings: they stand on long footstalks, and are of a pale green, and hairy.

The stalks are numerous: they rise from the centre of this cluster of leaves; and are round, yellowish, weak, and ten inches high.

The leaves stand irregularly on them, and are divided each into three parts, and of a pale green, and hairy.

The flowers are moderately large, and of a bright red; and they stand in a rough hairy cup.

The seeds follow in a flat rounded head.

It is a native of France and Italy, and flowers in July.

C. Bauhine calls it *Alcea hirsuta*. J. Bauhine, *Alcea villosa*.

The virtues of the *vervain mallow* are the same with those of the *common mallow*, but in an inferior degree.

There are several other plants allied to the *mallow* kind in their general appearance, but producing their seeds in capsules: these are distinguished by modern writers under the names of *sida*, &c. and will be treated of in the next class.

S E R I E S II.

Those of which there are no species natives of BRITAIN.

G E N U S I.

NOBLE LIVERWORT.

H E P A T I C A.

THE flower is composed of three petals, or of several ranges of petals, three in each; and has a three-leaved cup. The seeds stand in a naked cluster; and are numerous, oblong, pointed at each end, and lightly hairy. When the flower is single, there stands a tuft of numerous filaments in the centre: in the double flowers these are less distinctly seen.

Linnaeus places this among the *polyandria polygynia*. In his first works he makes it a separate genus; in his latter he confounds it with the *anemone*; but their difference is very obvious and certain, the *anemone* having no cup to the flower. There is properly only one species of this plant; but culture has raised a multitude of varieties of it; some of which, that appear the most distinct from the rest, have been described by authors as if distinct species.

Single Blue Hepatica.

Hepatica flore simplici caeruleo.

Plate 1. Fig: 15.
The root is composed of a large fleshy head, and a vast quantity of fibres: these last so cover the tuberous part on all sides, that it appears, on taking out of the ground, to be only a tuft of fibres.

From several parts of this root rise first naked stalks supporting the flowers, and afterwards the leaves. As nature has inverted the general order in the growth of this plant, it is proper, in the description, we follow her course.

The footstalks which support the flowers are short, and very slender: one flower stands on each, and this is composed naturally of three, six, or nine petals; for in the wild plant there is found all that variety. When the petals are only three, they stand in a regular order; when six, there is a second range of three over the first; and when nine, a third range over that. In the centre there is a great tuft of fibres; and under the flower there is a three-leaved cup, which remains when that is fallen. The common colour of the flower is blue in its natural state, sometimes red, and sometimes white.

The

The seeds follow in a small roundish head.

The footstalks of the leaves are longer than those of the flowers, and are slender and weak: each supports a single leaf: this is divided into three parts; but the division does not run down to the stalk: the colour on the upper-side is a dusky green, and on the under-side it is paler.

It is a native of Germany, and many other parts of Europe, and flowers early in spring.

C. Bauhine calls it *Trifolium hepaticum flore simpliciter*; others, *Hepatica nobilis*, or *Noble liverwort*.

It is recommended as an agglutinant, balsamick, and vulnerary. It has been esteemed also greatly in disorders of the liver; but it is not so much regarded here, as abroad.

G E N U S II.

LEOPARD'S BANE.

T H O R A.

THE flower consists of five petals, with a tuft of threads in the centre: the seeds stand in a small naked cluster: the root is tuberous; and the leaves are roundish, and entire.

Linnaeus places this among the *polyandria polygynia*, making it a species of *ranunculus*, not a distinct genus, with its peculiar and proper name. The flowers and seeds agree with those of the *ranunculus*: but the whole aspect of the plant is different from any kind of crowfoot; and the generical character, taking in the leaves and root, is quite distinct.

There may appear the less inconvenience in joining this plant with the *ranunculus*; because not only the form of the flower and seeds is the same, but the plant agrees in its qualities in some degree with the crowfoots. But as there is an antient distinct name for it, and there are grounds in nature for supporting the distinction, I have preferred it.

There is properly but one species of *thora* known.

Round-leaved Leopard's Bane.

Thora valdensis.

Plate 1. Fig: 16.
The root is composed of a number of oblong thick pieces, hanging from one head.

The leaves that rise from it stand on long footstalks, and are nearly round. The stalk is inserted at the middle, where there is a little dent; and they are finely serrated about the edges.

Among these rises a single stalk of eight inches in height, slender, round, and upright; not branched, but dividing sometimes into two, sometimes into three twigs at the top.

Near the bottom of this stand two or three leaves, resembling those from the root, or sometimes a little dented at the end opposite the stalk; in some plants also they are doubly dented, so as to give the idea of a division into three parts.

Toward the top of the stalk stand several leaves of a very different figure; they are narrow, longish, and have no footstalks, and are small, and not divided at the edge.

On the top of the stalk stands a single flower, when it is not divided; when it is, one on each division.

These are moderately large, and of a very beautiful yellow, composed of five broad petals, and placed in a cup of five narrow leaves.

The seeds stand in a naked cluster:

It is a native of the mountains in Switzerland, and other parts of Europe; and flowers in May.

J. Bauhine calls it *Thora folio cyclaminis*; others, *Thora*, and *Thora valdensis*. Most authors describe a smaller species; but it is no more than a variety of this. What we have given, is the plant in its utmost perfection: where it is starved, the leaves are less and more dented; and there are only two or three of the narrow ones, and a single flower on the stalk: but this which is called the *lesser thora*, being brought into a garden, becomes the same with the *greater*.

It is accounted poisonous.

G E N U S III.

CLIMBER.

A T R A G E N E.

THE flower is composed of twelve petals, and has a cup composed of four leaves: the seeds stand in a naked cluster, and have long downy filaments.

Linnaeus places this among the *polyandria polygynia*. It resembles the *clematidis* in the seeds, but differs greatly in the flower.

Trifoliate Atragene.

Atragene foliis pinnatis, trifoliatis.

Plate 1. Fig: 17.
The root is long, woody, and creeping.

The first leaves are broad, and stand on long No 3.

footstalks, only three on each, and those not deeply serrated.

The stalks are numerous, woody, weak, and slender: they are four or five feet long, and divided into numerous branches.

I

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The leaves stand on long footstalks, and are of a particular form: they have a pinnated aspect, and consist each of nine leaves, disposed in three parcels; one parcel at the end of the footstalk; the other two at the sides, in the manner of wings. These are of an oblong form, and beautifully divided; and are serrated round the edges.

The flowers stand on long footstalks, and are of a beautiful purple colour, sometimes deeper, sometimes paler.

The seeds stand in a round head, with long and beautiful downy threads.

It is frequent in some parts of Germany, and flowers in June.

C. Bauhine calls it *Clematis alpina geraniifolia*.

Haller, in the new method, makes this shrub a species of anemone. He calls it *Anemone tubis caudatis pinnis latissimis*. He adds the word *trapetala*, considering the cup as the flower.

It is of a hot and pungent taste. The bark of the root has been used in outward applications against pains, and is said to have taken great effect against the sciatica. Some have used it also in the gout, under the violence of a fit in their feet, but without success.

The END of the FIRST CLASS.



THE

THE

BRITISH HERBAL.

CLASS II.

Plants whose flower is composed of SEVERAL PETALS, with NUMEROUS THREADS in the centre, and whose seeds are contained in SEVERAL PODS.

THIS, like the former, is a class perfectly distinguished by nature; although the plants of which it consists have been separated from one another, and joined with such as are unlike them, by the fashionable form of this science. Mr. Ray, who followed nature carefully, has kept these together, as the preceding. He calls them *herbe multiflorae, five corniculatae*.

The plants of this class are fewer than in many others; and we see how regularly, naturally, and obviously they are connected together; yet Linnæus has dispersed them over all his works. We join them, because several separate seed-vessels follow every flower. This character they all have, and this no other have; it is therefore a very plain and perfect mark for their distinction: that author separates them, because though all have several threads in the centre; yet some have a greater, some a smaller number. Because hellebore has twenty or more of these threads, he places that, and, for the same reason, columbine and larkspur, among his *polyandria polygynia*, joining them with the plants of our last class. Because in the greater houseleek these threads are twelve, and in the lesser species ten, those plants are separated from the preceding, and from one another, and placed in two distinct classes; the former among his *dodecandria*, and the other among his *decandria*. The flowering rush, for bearing but nine threads in every flower, is sent into a class different from all the others, among his *enneandria*: and the periwinkle, having but five threads in each flower, is joined with ivy, currants, and the vine, whose fruits are berries, under the class of *pentandria*.

Thus we see the plants of which this class is composed, and which are so perfectly allied to one another, distributed by this author throughout every part of his system; scarce any two of them are to be found together.

The question here is, whether a number of plants are to be treated of together, because they all have their seeds placed in several capsules after every flower, a character no others enjoy in common with them; or whether they are to be separated into different classes, because one has ten, and another has but nine threads in the centre? Such is the system of Linnæus. Novelty made it please, and its obscurity rendered it admired; but it cannot be lasting.

Tournefort judged better in this case: erroneous as he has been with respect to the plants of the preceding class, he determined rightly of these. The singular character of several separate capsules after every flower, could not escape him; though Linnæus, who knew, would not observe it. Tournefort keeps them together, as Mr. Ray has done, under that character. The instances we have given of Linnæus's unnaturally separating these plants from one another, and unnaturally joining them with others, are from the English wild kinds. We shall shew greater force put upon nature, when we come to foreign genera; if there can be greater than joining the periwinkle and the vine, one having for its fruit a berry, the other several separate dry pods; because in each the flower has five threads in the centre.

SE-

S E R I E S I.

Natives of BRITAIN.

Those of which one or more species are naturally wild in this country.

G E N U S I.

BLACK HELLEBORE.

HELLEBORUS NIGER.

Black hellebore has fingered leaves; and large flowers, composed of five roundish petals: and these have no cup. In the centre stand numerous threads, with upright flatted buttons, and the rudiments of several capsules, which when ripe are large, and compressed, and contain roundish seeds. It is one of the *polyandria polygynia* of Linnæus.

DIVISION I. BRITISH SPECIES.

1. Small wild Hellebore.

Helleboraster niger flore viridi.

The root is a tuft of thick, numerous, black fibres.

The first leaves stand on long footstalks; and are large, of a deep green, and divided into several parts, in the manner of fingers: these are each of them long, narrow, sharp-pointed, and deeply ferrated at the edges.

The stalks are numerous, and about a foot high: they are round, green, firm, and upright.

The leaves on these are few: they resemble those from the root; but are smaller, and have short footstalks; often none.

The flowers stand at the tops of the branches, and very large and singular: they have no cup: they are green, but paler than the leaves; and they have a great number of threads, with white buttons in their centre.

The seed-vessels appear among these, and afterwards ripen; the flower not falling, but remaining with them.

Some have hence said that it is properly a cup, and that this plant has no flower. It is true, that the flower of this plant does not agree with their definitions of a flower, which say that it must be composed of leaves differently coloured from those of the plant, and that they must fall off before the seed ripens; but nature is more certain than their characters. The flower of the *wild hellebore* is truly such; and all we learn by their nice distinctions is, that their definition is imperfect: that should be altered; not this struck out of the list of flowers.

The pods, when ripened, are large, flatted, and tough; and each contains several seeds.

It is a scarce plant. It has been found in woods in Kent and Suffex, and in Buckinghamshire. It flowers early in spring.

It has the virtues of *black hellebore*, but in an inferior degree.

Our country-people give a little of the powdered root to their children against worms; but it is too rough a medicine. The leaves dried and powdered are taken for the same purpose; and an infusion of the flowers is said to be a prefer-

ative against contagious diseases. It is a very harsh medicine, and should be given with caution.

C. Bauhine calls this *Helleboraster niger kortensis flore viridi*; others, *Helleborastrum*.

2. Great wild Hellebore.

Helleboraster maximus.

The root is long, large, and furnished with many fibres.

The leaves are numerous, large, and beautiful: they stand on long footstalks, and are divided deep, in the manner of fingers: there are nine or more of these on each stalk, or composing each compleat leaf. They are of a bluish green colour, and glossy; and are very narrow, sharp-pointed, notched at the edges, and often turn inward at the ends.

The stalk is a yard high: it is green, round, very thick, and full of leaves.

These have their long footstalks like those from the root. Those on the lower part resemble those of the root in form; but those near the top are simple, not fingered; they are only divided into two or three irregular parts at the end. The flowers are very numerous, but not so large as in the preceding: they are green, with a bluish of purple, principally on the outside; and they have numerous threads, with white buttons in the centre.

The seed vessels are many, and the seed is roundish.

It is wild in some parts of Kent and Suffex, but is not common. It flowers very early in spring.

The roots are a violent purge, and too harsh for inward use.

The country-people put pieces of them into holes cut in the ears, or other parts of their cattle, in many disorders; and they produce a discharge, which often is serviceable: they call these *setters*, and the plant has thence been named among them *setterwort*.

C. Bauhine calls it *Helleborus niger fatidus encephylon Plinii*; others, *Helleboraster maximus*.

Both this and the former, as they are scarce in their wild state, are kept by our country-people in gardens, where they call them both *beard's-foot*.

DIVISION II. FOREIGN SPECIES.

True black Hellebore.

Helleborus niger flore roseo.

The root consists of a vast quantity of thick, tough, long, and black fibres; sometimes fastened to a small head, sometimes without any.

The leaves rise in a cluster, and are large and beautiful: they are of the fingered kind, and of a pale green colour, and fleshy texture. They stand on footstalks three or four inches long, thick, fleshy, redish, but seldom quite erect; and each leaf is composed of about seven parts, sometimes less: these are broad, short, ferrated at the edges, and pointed at the ends.

Among these rise the stalks which support the flowers.

These are shorter than the footstalks of the leaves, and, like them, thick, fleshy, and often redish: each sustains a single flower, and each has a kind of little leaf on it placed about its middle, and altogether unlike the others.

The flower is very large, and very beautiful; it is white, with a bluish of redish, and is as big as a small single rose: there are numerous threads in the centre, with white buttons.

The seed vessels are numerous, flatted, and full of a roundish seed.

It is a native of Germany, and is frequent on

the Apennine mountains. It flowers in the dead of winter; whence it has obtained among our gardeners the name of *Christmas flower*.

C. Bauhine calls it *Helleborus niger flore roseo*; others, *Helleborus niger verus*.

This is the *black hellebore* so celebrated among the ancients for its virtues. It was esteemed a sovereign cure for madness.

It is an excellent deobstruent, and is good in nervous and hyfterick cases. The principal virtue is in the outer bark of the root, the rest being insipid.

It may be given in powder, or in tincture; but the best method is the latter. It is a coarse, rough medicine; and there should always be given with it cloves, cardamoms, or some other spice.

It operates as a cathartick, but very uncertainly. Its best use is in obstinate obstructions. I have known inveterate complaints in the head cured by a continued use of a tincture of *hellebore* and cloves, thirty drops for a dose.

The tincture for this purpose should be made with an ounce of *hellebore-root*, a dram and a half of cloves, and a quart of proof spirit, without heat. Great care must be taken that the root be fresh, for it is often damaged by keeping.

G E N U S II.

GLOBE-FLOWER.

TROLLIUS.

THE leaves are fingered: the flower consists of numerous petals; the outer ones are shorter; and the inner, which are larger, bend toward one another; so that the flower is globular: the capsules of seeds are numerous.

Linnæus, in his *Genera Plantarum*, makes this a species of *hellebore*; from which it differs in that essential and obvious character, the number, form, and disposition of the petals which compose the flower. He was not ignorant of this plain distinction: but the fondness for his system would not then let him separate a plant he saw so perfectly distinct. He acknowledges that the number and figure of the several parts of the flower vary; but he says the essential character of the genus consists in the nectarium. This is the shift to which we have seen this great author before reduced in the crow-foot kind. Nature disclaims that system, which will force, under one imaginary genus plants the form, number, and situation of the several parts of whose flowers are unlike; because in each there is a little glandule in the lower part of the petal, that is, somewhat alike in one and in the other.

In his *Species Plantarum* this author has given them as separate genera.

DIVISION I. BRITISH SPECIES.

Common Globe-flower.

Trollius vulgaris.

The root is a tuft of long thick fibres, connected to a very small head.

The leaves rise in a cluster, and each is supported on a long and moderately thick footstalk: they are in the whole of a roundish circumference, but are divided down to the stalk into five, seven, or more parts; and each of these is also toward its extremity divided more slightly into several others, and all the way notched at the edges.

The stalk is round, thick, upright, two feet

N° IV.

high; of a pale green, and scarce at all divided into branches.

Its leaves are few, and placed irregularly: there are one or two towards the bottom, and one only near the top; the lower ones have short footstalks, the upper none: they resemble those which rise from the root in their division and colour, which is a dusky and unpleasant green.

The flower is large, yellow, singular, and beautiful: it never perfectly opens. The outer petals or leaves are short, the inner much larger; and they nearly close at their points, leaving only a very small opening into the body of the flower: the shape of which is therefore globular. There

stand within it a vast number of very short filaments, and among them the rudiments of numerous capules. Toward the bottom of each petal there is a gland which opens in a labiated manner, the lip being undivided.

The seeds are contained in numerous capules.

It is a native of Wales, and of some of the northern counties of England. It flowers in June.

DIVISION II. FOREIGN SPECIES.

Small Globe-flower.

Trollius humilis flore croceo.

The root is a tuft of long, thick fibres.

The leaves rising from the root are deeply divided in the manner of those of the other; but they stand on shorter footstalks, and are of a pale green.

The stalk is round, tolerably upright, and about ten inches high.

Its leaves are few; and they are deeply divided, and have the divisions serrated at the edge as the others: they are of a paler green, and stand very irregularly.

The flowers are very large, and very beautiful: their colour is a deep yellow, with a tinge of orange; and they at first have the figure of those of the common globe-flower; but when they

We keep it in gardens for the singularity of the flower.

The virtues have not been tried.

Most authors have called this plant a *Ranunculus*, not observing the seed-vessel.

C. Bauhine calls it *Ranunculus montanus aconiti folio flore globofo*; others, *Ranunculus globofus*.

have stood some time, they open: they have a great number of threads within, and are succeeded by many short and flat pods.

What is very singular in the structure of the flower in this species is, that the glandules we have described at the bottoms of the petals in the common globe-flower, are in this very long, and give a very particular aspect to the whole.

This species is a native of many parts of the world, but not of England. Tournefort found it in the Greek islands, and Amman in Siberia: they both describe it as a species of hellebore.

Tournefort calls it *Helleborus niger orientalis ranunculi folio flore nequaquam globofo*. Amman, *Helleborus aconiti folio flore globofo croceo*.

Linnaeus describes the first as a species of hellebore, in his *Flora laponica*.

GENUS III.

MARSH MARYGOLD.

CALTHA.

THE leaves are undivided: the flower is composed of five large petals, and has no cup. In the centre there are numerous filaments, with erect, obtuse, compressed buttons. The capules are numerous, short, and pointed; and the seeds roundish.

Linnaeus places this among the *polyandria polygynia*, next to the crowfoot; supposing, in his usual manner, that they are of the same class, because both have numerous filaments in the centre of the flower; though the seeds of the crowfoot stand naked, and the seeds of the marsh marygold are enclosed in capules.

Of this genus there is but one known species, and that is a native of Britain, and very common.

Common Marsh Marygold.

Caltha palustris.

The root is composed of a vast number of long, thick, whitish fibres, which run under the surface to a great distance.

The leaves rising from it stand on long, green, thick, and fleshy footstalks: they are of a roundish figure, but indented where they receive the stalk, and very lightly notched about the edges.

The stalks are thick, round, fleshy, upright, of a pale green, and a foot and a half high: they have few branches, and their leaves stand irregularly; those toward the lower part have footstalks, those higher up have not; and they are all of the same shape, though somewhat sinuated and pointed, and of the same fine green colour.

The flowers are very large, and of a beautiful

yellow: they have a great tuft of short threads in the centre.

The seeds are contained in a cluster of short pods.

It is frequent in our meadows, and flowers in April.

C. Bauhine calls it *Caltha palustris flore simplici*; others, *Caltha palustris*.

Authors have described, and even figured, what they call the *small marsh marygold*, as if a distinct species; but it is only an accidental variety.

The flowers of this plant are sometimes found naturally double: this also has by some been figured as a distinct species; but these are the most common and trivial of all varieties.

Its virtues have not been tried.

GENUS

GENUS IV.

FLOWERING RUSH.

BUTOMUS.

THE leaves are long and narrow. The flowers are disposed in a kind of umbel which has a three-leaved cup. Each consists of six petals, three larger within, and three smaller without, and six capules for the seeds follow the flower.

Linnaeus places this among his *Enneandria*, because its flower has nine filaments in the centre; separating it by several classes from the globe-flower and marsh marygold, to which its flowers and seed-vessels shew it manifestly belongs.

There is but one known species of this genus, and that is a native of Britain.

We see this class not only comprehends fewer genera than many others, but that several of those have but a single species.

The Flowering Rush.

Butomus.

The root consists of a multitude of long, slender and tough fibres joined to a small head: many of these heads grow together, so that one cluster of the roots will be extremely large.

From these rise together the leaves and stalks; these form a kind of bulbous bottom, and the leaves surround one another, as well as the stalk, to some height; after this they separate; and they are long and narrow: they are not flat, but of a three cornered shape, and are thick, and full of a light, loose pith. Their colour is a bluish green, and they are sharp at the points.

The stalk is tall and naked. It rises from the centre of a cluster of leaves, and is three or four foot high. It is round, smooth, thick, and full of pith.

The flowers stand in a large tuft at the top,

and these are moderately large, and very beautiful. They consist each of six short, obtuse, and roundish petals, and are of a delicate pale red colour. They have two sets of threads in the centre, six which stand outward, and three within them; and on these are buttons, formed each of two lamellæ or plates. In the centre of these are six rudiments, which, after the flower is fallen become the fruit.

These capules are oblong, erect, and open inwards. They are each composed of a single piece, whereas those of the others usually are of two. The seeds are oblong and obtuse.

It is not uncommon with us in waters; flowering in June.

J. Bauhine calls it *Juncus floridus*. C. Bauhine, *Juncus floridus major*.

We have no account of its virtues.

GENUS V.

STARRY WATER PLANTAIN.

DAMASONIUM.

THE flowers consist of three petals. The seeds are contained in capules, several of which succeed every flower.

Linnaeus places this among the *hexandria polygynia*, making it a species of *water plantain*, under the name *alisma*. This was an early error, and we are to call the name *water plantain* a very improper one, though the addition of *starry* makes a plain distinction.

We have been used to wonder that the common English writers named this as a species of that genus; but our surprise must be greater when we see this writer fall into the same confusion. Its seed-vessels plainly distinguish it from the *water plantains* properly so called, and refer it to this class, to which they do not belong.

There is but one known species of this genus, and that is a native of Britain.

Starry Water Plantain.

Damasonium.

The root consists of numerous long and slender fibres.

The leaves are numerous. They stand on footstalks of three or four inches in length, and are oblong, broad, and often split at the ends.

The stalks rise in the centre of the tuft, and are eight or ten inches in length, irregular in their growth, much branched, and not very upright. They are round, thick, and fleshy.

The flowers stand in clusters at their tops, and in other parts: they have each a long slender pedicle, and are small and white.

The seeds follow enclosed in capules six after every flower. These are disposed in a radiated manner, so as to resemble the figure of a star; and thence the plant had its name *starry*; as it had that of *water plantain* from some resemblance of the leaves to those of that plant.

It is common in shallow muddy waters and about ditch sides. The leaves sometimes float upon the water, at other times they stand dry.

It flowers in July, and the seed-vessels soon follow.

J. Bauhine calls it *Damasonium stellatum dalecampii*. C. Bauhine and most others, *Plantago aquatica stellata*.

We have no account of its virtues.

GENUS

GENUS VI.

ORPINE.

TELEPHIUM.

THE flowers consist each of five petals, and stand in a kind of umbel. The leaves are fleshy and flat. Linnaeus places this among his *decandria pentagynia*, making it a species of sedum or house-leek. The flowers and seed-vessels indeed are very like; but *orpine* in its general form and figure, is sufficiently distinct; and having been called by a separate name, and endowed with particular virtues, we preserve the distinction.

There is the more use in this because the species of houseleek are in themselves very numerous; so that the lessening the number is rendering the knowledge of them less perplexed and more familiar.

DIVISION I. BRITISH SPECIES.

1. Common Orpine.

Telephium vulgare.

Plat. 5
Fig. 10
The root is composed of a great number of tuberous pieces irregularly joined together, and having many fibres between them.

The first leaves are small and inconsiderable; they are oblong, blunt at the ends, and have no footstalks. They presently grow yellow and decay.

The stalks are numerous, round, thick, fleshy, upright, and two foot high.

The leaves stand thick upon the stalks, two, or three sometimes rising from the same spot: they are broad, oblong, flat, blunt at the ends, and slightly serrated at the edges. Their colour is a fresh and beautiful green.

The flowers stand in clusters at the tops of the stalks: they are small, but of a delicate red. Each is composed of five small, radiated, pointed leaves, with ten threads, and the rudiments of the seed vessels in the centre.

The flower being fallen these rudiments ripen into capsules five after every flower, in which are contained very small and numerous seeds.

It is common in our pastures, and flowers in July.

The whole plant is succulent and fleshy, and will preserve its form and colour a long time when cut from the root, especially if refreshed with water.

C. Bauhine calls it *Telephium vulgare*. J. Bauhine, *Anacampteros vulgo faba crassa*.

We sometimes see it with a white flower. In this condition it has been described by some as a distinct species. There are also some other varieties in the breadth and disposition of the leaves, from which there have been made many imaginary species, such as the *broad-leaved orpine*, and the like; but these, when more nicely examined, will be found not to differ in any thing essential from this common kind.

Orpine is famous as a vulnerary. It is styptick

DIVISION II. FOREIGN SPECIES.

1. Oval-leaved Orpine.

Telephium foliis ovatis.

Plat. 5
Fig. 11
The root is white, long, irregular in shape, and creeps under the surface, with numerous fibres.

and subastringent. The root contains the principal virtue, and it is excellent in dysenteries, and in diarrhæas that erode the intestines. It is also used externally in burns. The best way of giving the root is carefully dried and reduced to powder; five and twenty grains for a dose.

2. Roof-root.

Telephium roseum.

Plat. 5
Fig. 12
The root is large, thick, and of an irregular form, oblong, and tuberous, and full of fibres: it is brown on the outside and white within, and is brittle, and of a very pleasant smell. There is plainly the scent of the damask rose in it, but it is very slight; and the same flavour is perceived in tasting it.

The first leaves are oblong, narrow, and without footstalks: they quickly fade.

The stalks are numerous, and rise in little clusters from different parts of the roots. They are slender, round, and about a foot high.

The leaves are very numerous, and they stand irregularly on the stalks: they have no footstalks. They are oblong, narrow, sharp-pointed, and sharply serrated at the edges. They are of a yellowish green, and usually have a purplish tinge at the point.

The flowers stand in clusters at the tops of the stalks. They are small, and of a pale red.

The seeds follow in separate capsules, which are longish and bent like horns.

It is frequent on the mountains in Wales and in Yorkshire. It flowers in July.

C. Bauhine calls it *Rhodia radix*; and Morison *telephium roseum*.

The root is recommended by some against the gravel. It is aperient by urine, but in some degree astringent in the bowels; and possesses in common with *orpine*, the virtue of blunting the acrimony of sharp humours that erode the intestines. Against diarrhæas and dysenteries it should be given in powder; and as a diuretick, in decoction.

The first leaves have short pedicles, and are oblong, narrow, obtuse and serrated, and of a pale green. These fade quickly, so that there is no remain of them about the stalk.

The stalk is round, thick, fleshy, of a pale green, two foot high, but not very erect. The weight of the top is too much for it towards the bottom, and it usually bends or drops.

The leaves are numerous, of an oval figure, and with only the rudiments of a footstalk: they are smallest at the bottom, broadest at the top, and serrated at the edges; the extremity terminating also in a small point.

The stalk frequently sends out branches toward the top, and on the summit of these stand the flowers.

They are small but numerous, placed in a cluster in the manner of *common orpine*, but of a deeper purple.

The seeds are contained in several small pods.

It is a native of Italy, and flowers in July.

C. Bauhine calls it *Telephium purpureum majus*.

J. Bauhine, *Anacampteros purpurea*.

Its virtues are the same with those of *common orpine*.

Some who have seen the error of multiplying the varieties of the common kind into species, have supposed this, which is a distinct species, to be only a variety: this is an error on the other side; it is plainly distinguished as a species by the oval form of the leaves and the smallness of the flowers.

2. Short-leaved Orpine.

Telephium repens foliis brevibus.

Plat. 5
Fig. 13
The root is not tuberous or large, as in the *common orpine*, but composed only of fibres. The leaves that rise from it are few and fade quickly, but there are always seen a great number of young shoots, which are full of little leaves.

These rise by degrees into stalks: they are

round, fleshy, weak, and a foot or more long, but they are only a part of that length in height; for they lie on the ground toward the bottom, and frequently take root there, creeping and spreading; so that the tufts of this plant are commonly large.

The leaves are very numerous on these stalks while young, but when they grow to a height, and approach toward flowering, they fall off; so that while the young shoots are very thick set with them, the flowering stalks are almost naked.

These leaves are short, broad, of a bluish green colour and a glossy appearance, and are not all indented at the edges.

The flowers stand on the tops of the stalks in a single, large tuft; for the main stalk seldom divides, or sends out any branches. These are larger than the flowers of the *common orpine*, and of a bright pale red, sometimes white. There stand in the centre of each flower ten threads with yellow buttons, which make a pretty variety in the colour; and among them are five rudiments of capsules.

The flowers being fallen these grow larger, and contain a very small, pale brown seed in great plenty.

It is a native of the Apennines, and flowers in June.

The leaves remain on the young stalks all the winter.

C. Bauhine calls it *Telephium repens folio deciduo*. Others, *Telephium semper virens*.

These two names seem contradictory, but Bauhine alludes to the dropping of the leaves from the flowering stalks; the other to those on the young shoots, being green all the winter.

The leaves are cooling, and are used in ointments, where the plant is common.

GENUS VII.

STONECROP.

SEDUM.

THE flower consists of five petals, and stands in a cup composed of a single leaf divided into five segments: in the centre of each flower are several threads surrounding five rudiments, which afterwards become so many capsules, containing small numerous seeds. While these rudiments are in the flower each has a nectarium or little gland near its base.

Linnaeus places this genus among the *decandria pentagynia*. It is nearly allied to the *orpine*, but its species are sufficiently numerous without including those of that genus, so long known by that name, and so distinct in figure and in their manner of growing.

DIVISION I. BRITISH SPECIES.

1. Yellow Stonecrop.

Sedum minus hæmatodes.

Plat. 5
Fig. 14
The root is small, fibrous, and creeping.

The first branches that rise from this, for there are no single leaves rising from it, are slender, weak, and lie upon the surface. They are three inches long, and set very thick with leaves, which are commonly of a blood red colour. This gave origin to the Latin name of the plant, which exactly translated signifies *bloody*.

Nº 4.

The stalks which bear the flowers are six or eight inches high: they are, like the others, round, thick, fleshy, with a firm core, and are usually of a reddish colour.

The leaves stand as thick on these as on the others, and are of the same kind. They are oblong, thick, fleshy, rounded in circumference, but a little flat on one side; and are of a pale green at first, but become red afterwards; and they terminate in a kind of weak prickles.

The flowers stand in a tuft in the manner of L. thofe

those of *orpine*, and are of a beautiful yellow colour. Each is composed of six leaves, and in the centre there are many short threads surrounding several rudiments of capsules.

These ripen when the flowers are fallen, and are full of small seeds.

It is common on old walls and the tops of houses, and flowers in July.

C. Bauhine calls it *Sedum minus luteum folio acuto*. J. Bauhine, *Sedum minus flore luteo*.

2. Scorpion Stonecrop.

Sedum minus scorpioides.

The roots are slender, and edged with a few fibres.

From these rise numerous stalks, furnished with abundance of leaves, which lie in a cluster about the root, but never rise up to flowers. These are two or three inches long, full of leaves in every part, but particularly about the tops.

Among these rise the stalks which support the flowers. They are thick, and composed of a fleshy outside, with a sticky core. They are ten inches high, of a pale colour, and full of leaves at first, but these turn red, and soon after drop off about the roots.

They are oblong, thick, fleshy, and pointed: they have no footstalks; and till they loose their first colour are of a beautiful green.

The flowers grow in clusters on the top of the stalk, and are large, and yellow; they stand on little branches, which, before they open, turn round inward like a scorpion's tail.

The seeds are contained in capsules, several of which follow every flower.

It is common on old walls, and flowers in the middle of summer.

C. Bauhine calls it *Sedum minus luteum ramulis reflexis*. Others, *Sedum scorpioides*.

It has been accounted by many but a variety of the common yellow kind, but it is a distinct species, the flowers are larger; and the leaves longer.

3. White blunt-leaved Stonecrop.

Sedum album foliis obtusis.

The root is small, slender, and furnished with numerous fibres.

The stalks that first rise from it are short, thick, and branched: these lie upon the ground, and have a great number of oblong, fleshy, pale green leaves on them.

The stalks which bear the flowers rise among these: they are slender, upright, and a foot high.

The leaves stand irregularly on these, and in a considerable number: they are larger than those on the first shoots that lie upon the ground, otherwise like them. They are of a pale green, rounded, oblong, and blunt at the ends.

The flowers stand at the tops of the stalks in bunches, but not so numerous or thick set together as in the yellow kind: they consist of five leaves each, and are moderately large, and white.

The seeds are contained in small capsules, several of which succeed every flower.

It is not uncommon on the tops of old houses, and flowers in autumn.

C. Bauhine calls it *Sedum minus teretifolium album*. Others, *Sedum minus album*.

This is cooling and astringent. Its juice with plantain water makes a good gargle for a sore mouth; spitting it out when used. The two preceding species have the same virtues, but in a less degree.

4. Cluster-leaved Stonecrop.

Sedum foliis stipatis.

The roots are fibrous and small.

There rise from these numerous short branched stalks, that lie upon the ground, and are very thick covered with fleshy, oblong leaves.

Among these rise slender stalks, which are upright, redish, four inches high, and not branched: these sustain the flowers. The leaves are oblong, fleshy, and end in a point. They stand in a very confused and thick clustered manner upon these, and often become red.

The flowers grow at the tops in small tufts, and are little, and of a bright yellow.

The seed-vessels are narrow capsules, several come after every flower, and they are full of small seeds.

It is common on the mountains in Wales, and has been found on Saint Vincent's rock near Bristol. It flowers in July.

Pitiver calls it *Sedum minus Vincentii*; and Merret, *Sedum minus e rupe dici Vincentii*.

5. Rounded-leaved Stonecrop.

Sedum minus circinnato folio.

The roots are small and fibrous.

The leaves stand very close upon the first shoots, which lie upon the ground, and are thick, short, fleshy, and of a pale green.

Among these rise the stalks that bear the flowers: they are weak, slender, and four or five inches long.

The leaves on these are numerous, short, blunt, and of an oval form; sometimes divided at the end.

The flowers do not stand in tufts as in the preceding, but separately on different parts of the stalk; and they are large and white.

These are followed by several capsules full of very small seeds.

Its leaves grow very irregularly on the stalks, sometimes two, sometimes four from the same spot; and those on the short shoots that rise from the root and spread upon the ground are often disposed in a rounded manner at their ends.

It is found in Yorkshire and some other of the northern parts of England.

C. Bauhine calls it *Sedum minus circinnato folio*. Others, *aiizon dasyphyllon*.

6. Sharp yellow Stonecrop.

Sedum minus acre flore luteo.

The root is long, slender, and furnished with many fibres.

The first shoots are short, branched, and clustered with leaves. They lie upon the surface, and are of a fresh and beautiful green.

The larger stalks which bear the flowers rise among these, and are perfectly like them. They are slender, and their weight, from the number and thickness of the leaves, is such that they cannot stand upright, but lie on the ground like the others. They are five or six inches long, and commonly are divided into branches. They are naked,

naked, and whitish toward the bottom; but on the upper part are altogether covered by thick clustered leaves; so that they have a kind of scaly appearance.

These leaves are short, thick, fleshy, broad at the bottom, sharp at the point, and of a bright green.

At the tops of the branches stand numerous large and beautiful yellow flowers, each composed of five pointed petals.

The seeds are contained in small capsules, several of which follow every flower.

It is very common on walls; and in barren chalky soils will sometimes grow upon the ground.

I have observed on the chalk hills near Grave send in great abundance. It flowers in June.

C. Bauhine calls it *Sempervivum minus vermiculatum acre*. J. Bauhine, *Sedum parvum acre flore luteo*.

It is an excellent antiscorbutick, and is best given in form of an infusion.

A decoction of it is good in sore mouths arising from scorbutick habits. The fresh leaves bruised and applied to the skin raise blisters, and are excellent in paralytick contractions or weakness of the limbs.

7. Little white Stonecrop.

Sedum parvum mite flore albido.

The root is long, slender, and fibrous.

The stalks that first rise have clusters of little leaves on them, and they are half upright half drooping.

Among these rise others more robust, erect, and intended to bear the flowers.

These are two or three inches high, round, thick, upright, and of a pale green, sometimes of a redish colour.

The leaves are very small: they stand irregularly, but at distances, not clustered, but having spaces between them. They are short, broadish at the bottom, and pointed at the ends.

Toward the top the stalk commonly divides into two or three branches, and on the summit of these stand the flowers.

They are large, white, with a mixture of redish, and very beautiful. Each consists of five narrow, sharp pointed petals; and has some threads and rudiments of capsules in the centre.

The flower being fallen these capsules ripen, and each contains many small seeds.

It is frequent in the north of England on old walls and houses, and on the ground in barren places. It flowers in April.

Pitiver calls it *Illecebra alba mitis*. Merret, *Sedum minimum flore mixto ex albo & rubro*.

8. Purple Marsh Stonecrop.

Sedum purpureum pratense.

This is a singular and extremely pretty plant.

The root is composed of numerous fibres, short and very slender, rising from a small head.

The first shoots from this are short, slender, and thick set with narrow leaves, which stand in a kind of clusters or buttons at their tops.

Among these rises usually a single stalk to sustain the flowers. This is seven or eight inches high, tender, juicy, round, and usually redish.

The leaves are numerous, small, thick, and fleshy: they are a little hairy, and have much the resemblance of those of the common stonecrop, but that they are flatter.

Toward the top the stalk divides irregularly into four or five branches, on the summits of which, and of their subdivisions, stand the flowers.

These are very beautiful, of a pale purple colour, moderately large, and composed of five sharp pointed petals, with a few threads and the rudiments of some capsules in the centre.

When the flower is fallen these ripen. They are five in number, and they become pale. The seed is very small.

It is frequent in the northern parts of England, where it grows on the wet parts of hills. It flowers in April and May.

C. Bauhine calls it *Sedum pratense subirsutum purpureum*. J. Bauhine, *Sedum purpureum pratense*.

DIVISION II. FOREIGN SPECIES.

1. Branched Stonecrop.

Sedum ramosum.

The root is long, slender, and has many fibres.

The first leaves are numerous, short, fleshy, and not unlike those of purslane: they are of a pale green, and as they fade grow yellowish.

The stalks are numerous, round, weak, and eight or ten inches long. They lie in part upon the ground, and in part stand up. They are thick set with leaves, and divided into numerous branches.

The leaves stand irregularly, and are oblong, fleshy, of a pale green, blunt at the points, and without footstalks.

The flowers are very numerous, small, and white. They stand at the tops of the stalks, and of the numerous branches. Each consists of five, little, pointed petals, and has in its centre ten threads surrounding the rudiments of five capsules.

When the flowers are fallen these ripen, and contain small seeds.

It is frequent in the south of France, and flowers in May.

Morison calls it *Sedum annuum album oblongo portulacae minoris folio*. C. Bauhine, and others, after Mithiolus, *Cepaea*.

2. Large-flowered Stonecrop.

Sedum pumilum floribus majoribus flavis.

This is a small but very pretty plant.

The root is slender, white, and has several fibres.

The first shoots from this spread about the surface, and often take fresh root as they lie; so that the plant is generally seen in very large tufts: these are thick set with leaves, especially toward their extremities; and these are small, fleshy, oblong, and sharp pointed.

The stalks that bear the flowers rise among these. They are round, small, fleshy, and usually redish:

redish; they are three or four inches high, and have leaves on them, but those not clustered as in the preceding shoots.

These leaves are short, fleshy, and sharp pointed.

At the top of the stalk stand the flowers in a little cluster, five or six together. They are large in proportion to the plant, and yellow. They consist of six petals each, as the common English

stonecrop, and have ten threads, and the rudiments of six capsules in their centre.

When the flowers are fallen these ripen, and are full of very small seeds.

It is frequent about the Apennines and in other mountainous places, and flowers in June.

C. Bauhine calls it *Sedum minus luteum folio acuto*. Others, *Sedum rupestre*.

G E N U S VIII.

HOUSELEEK.

SEMPERVIVUM.

THE leaves naturally dispose themselves in round clusters. The flower is composed of twelve petals: it stands in a cup divided into twelve segments, and is followed by a cluster of twelve capsules.

Linnaeus places this among his *dodecandria polygynia*; the threads in the flower, and the rudiments of the fruit in general, answering to the number of divisions in the cup and of the petals in the flower; but this is uncertain. It is upon this exact number of twelve stamens that Linnaeus has placed it in his *dodecandria* class; but nature shews, and himself in some degree acknowledges, that this number of the threads, or stamens, is not certain: sometimes we see them fewer, sometimes more.

It is not proper, therefore, to remove a plant from among those to which it plainly belongs, for the sake of the particular number of threads in the flower, especially when that number is not constant or certain; and this is the misfortune of that fashionable method, not in this alone, but in numerous other instances.

The *sempervivum* and the *sedum*, *houseleek* and *stonecrop* are plainly allied to one another; inasmuch that many have distinguished them only by the names of greater and lesser: we have, in our natural method, placed them next after one another; and this, because the flower in each consists of several petals, and the seeds are contained in several capsules: but Linnaeus, because these houseleeks have twelve threads in each flower, and the stonecrops have but ten, has separated them into distinct classes.

They evidently belong to the same: their distinction in the number of petals, and of capsules is a proper mark for a separate genus, but nothing more: it has no right to place them in different classes; much less has the number of those lesser parts, which we see accompany in their variations those more obvious and considerable.

It is according to these last nature has classed plants together, and we should follow her steps; the observation in this case that the filaments agree in number with the petals in one genus, and in the other of the same class, was pretty; and an attention to their number and situation in other plants, is not always frivolous; but it was a weak imagination that prompted Linnaeus to believe these were the proper characteristics of what we call classes, and what nature has made families of plants.

They are always distinguished by greater characters.

DIVISION I. BRITISH SPECIES.

Great Houseleek.

Sempervivum majus.

The root is composed of a great number of long, thick fibres.

The leaves rise in a regular manner, forming a round cluster, and there are continually offsets produced from these first clusters, the leaves of which are disposed in the same manner; so that we commonly see a great number of these shoots together, which make a very beautiful appearance.

The leaves are broad at the bottom, sharp at the point, and even at the edges. They are of a pleasant green, very thick, and fleshy; and the larger being placed outward, and the lesser all the way inward, in several series, they give the idea of an eye.

From the centre of these clusters rises the stalk, which, when in flower, is of equal beauty with the leaves. It is a foot or more in height, and at the bottom as thick as a man's thumb; it gradually grows smaller all the way up, and is from top to bottom covered with leaves, which lie like scales, or like tiles of a house, one over another.

These resemble the bottom leaves in their fleshy structure, and in some degree in their form; but

they are longer in proportion to their breadth: they are sharp pointed, and of a pale colour, usually with a tinge of red.

The flowers stand in great numbers on the branches, into which the main stalk divides at the top, and they are large, and of a fine red.

The capsules are small, and contain very minute seeds.

It is common on walls and on the tops of old houses, and flowers in July.

C. Bauhine calls it *Sedum majus vulgare*. Others, *Sempervivum majus*.

Its virtues are the same with those of orpine, but it possesses them in a superior degree. It is cooling and astringent. Outwardly it is excellent for sore eyes, the juice being pressed out and mixed with cream.

It is also a famous remedy for corns, wetting them well with the juice, and then covering them with a piece of the skin of the leaf.

Internally it is cooling in fevers, and is particularly good in those attended with sharp diarrhoeas.

A cooling ointment may be made of the bruised leaves boiled in lard, which will answer all the purposes of the unguentum populneum.

DIVI.

DIVISION II. FOREIGN SPECIES.

Tree Houseleek.

Sempervivum arborescens.

This is not improperly distinguished by the name of *tree houseleek*: it has more the aspect of a shrub, though a very singular one, than an herb.

The root is large, thick, spreading, and full of fibres.

The trunk, for it is more properly so called than the stalk, is five or six feet high, of the thickness of a man's arm, and of a pale green colour on the surface: from this shoot branches of the thickness of one's thumb; and these sometimes are short and simple, sometimes longer, and divided into lesser ramifications.

At the extremity of each stands a cluster of leaves, formed into a circle, in the manner of those of the common *houseleek*, but very different in shape: they are oblong, and broad, smallest at the base, largest at the extremity, and there often dentated in the heart-fashioned manner: they are very tender and succulent; and, when nicely examined, are found to have some indentings at the edges.

The flowers stand upon peculiar stalks rising from the upper part of the plant: these are tender, and covered with leaves disposed in the manner of the common *houseleek* leaves on its stalk, but of the same form with those which stand in clusters.

The flowers are extremely numerous, small, and of a pale, but pretty yellow: they consist each of twelve pointed petals, and have twelve threads, and the rudiments of twelve capsules in the centre.

When the flowers are fallen, these ripen, and contain a quantity of very small seed.

It is a native of the Greek islands, and, as some say, of the warmer parts of Europe. It rarely flowers with us; and, when it does, it is at the end of summer.

J. Bauhine calls it *Sedum majus arborescens*. Clusius, and others, *Sedum majus legitimum*, and *Sedum arboreum*.

Its virtues are the same with those of the common *houseleek*.

G E N U S IX.

COLUMBINE.

AQUILEGIA.

THE leaves are divided into numerous parts: the flower consists of five petals, and five glands or nectaria standing alternately between them; these are of a long corniculated form: the seeds are contained in separate capsules, five of which follow every flower.

Linnaeus places this among his *polyandria polygynia*, separating it from the plants to which it is most allied.

While we blame that author for his conduct in this respect, we are to acknowledge that we owe to him the right understanding of the structure of this flower. The nectaria in most flowers are small, and it is very rarely they are conspicuous: they are glandules placed deep in the centre of them, in most cases, and destined for the reception of a honey-juice. In this singular plant they are large, beautiful, conspicuous, and form the most considerable part of the flower. What these horns of the columbine were, was not discovered till Linnaeus shewed it: but they are truly what he calls them. It is thus in many instances, which we shall have occasion to name: it were hard to say, whether most praise be due to him for his discerning genius, or his unwearied application. 'Tis with pleasure I pay this just tribute of applause to an author whose system I am obliged so frequently to censure. This is but one of a thousand instances that they will be long obliged to Linnaeus for his observations who shall decline his method.

Of this genus there is but one species a native of Britain.

DIVISION I. BRITISH SPECIES.

Wild Columbine.

Aquilegia sylvestris.

The root is long, large, and often divided into two or three parts; furnished with fibres, and of a brownish colour.

The leaves are numerous, and of a bluish green: they stand on long footstalks, which are of a redish colour, and a little hairy. Each leaf is composed of three parts, and each of these parts of three divisions: each division may be looked

No V.

upon as a separate leaf; and the whole will then be composed of nine such: these are divided at the edges, somewhat in the manner of an oak leaf.

In the centre of the tuft rises the stalk, which is slender, upright, jointed, redish or bluish, and a little hairy; and, toward the top, divides into many branches.

The leaves stand irregularly on it: they are few, and like those from the root, but smaller, and with fewer divisions.

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The flowers stand at the tops of these, and are large, and of a beautiful blue.

The seed-vessels follow, five to each flower, and contain large black seeds.

It is wild in the woods of Yorkshire, and other northern counties, and flowers in May.

C. Bauhine calls it *Aquilegia sylvestris*. J. Bauhine, *Aquilegia flore simplici*.

The seeds of *columbine* are famous against the jaundice. Matthiolus prescribes them with saffron; and there is no better way of giving them: they open obstructions of the viscera, and operate by sweat and urine.

It is also excellent alone in fevers, and in the small-pox and measles, to throw out the pustules.

A decoction of the roots and seeds makes a very good gargarism against sore throats.

For all these purposes the *wild columbine* is preferable to any of the garden kinds: and this is the case throughout all nature, the cultivated species having the most beauty, but the plain natural plant the most virtue.

This plant has been taken out of the woods into our gardens, and culture has given it a great variety of forms and appearances, which some have considered as distinct species. The *common garden columbine*, with large single flowers, the *double-inverted columbine*, and the *rose columbine*, as also the *degenerate great columbine*, have been called so many distinct plants; but they are nothing more than varieties raised from this stock by various culture.

There are other species, though less common; and these deserve to be distinguished.

DIVISION II. FOREIGN SPECIES.

1. Great-flowered Columbine.

Aquilegia magno flore foliis majus divisis.

The root is long, thick, and furnished with many fibres.

The leaves stand on long footstalks, and are divided into many segments: but these are not broad, as in the common kind; but narrow, of a pale green, and sharp-pointed.

The stalks are two feet high, upright, redish, branched, and firm.

Their leaves are few, and stand at distances.

The flowers are in all respects like those of the *common columbine*, but that they are much larger: their colour is a beautiful blue.

The seeds are contained in capsules, five following each flower.

It is common in the south of France, and flowers in June.

C. Bauhine calls it *Aquilegia montana magno flore*.

2. Red Virginian Columbine.

Aquilegia præcox rubra.

The root is long, thick, divided into several parts, and edged with fibres.

The leaves are numerous, and stand upon long footstalks: they are divided into small segments, notched at the edges, and of a very pale green.

The stalks rise in the centre of this tuft; and are slender, weak, and but six or seven inches high.

They have a few small leaves on them, divided like those from the root, but into narrower segments.

The flowers are large, and of a bright red on the outside, and yellowish at the mouth within: the horns or nectaria are not crooked, as in the common kind, but rigid and strait.

The seeds are contained in slender capsules.

It is a native of North America. We have it in some curious gardens; where it varies from the natural size, but preserves the character.

Cornutus calls it *Aquilegia pumila præcox Canadensis*. Others, *Aquilegia Virginiana rubra*.

GENUS X.

LARKSPUR.

DELPHINIUM.

THE flower consists of five petals, one of which runs out behind into a long spur: the seeds are contained in capsules; three of these naturally succeed each flower; but in some species they unite, and together form but one.

Linnaeus places this genus among his *polyandria trigynia*; the filaments in each flower being numerous; and the rudiments of the fruit three naturally, and most frequently; though sometimes only one, when the capsule is to be single.

This plant shews how difficult it must be to form the characters of a genus, or larger division, upon any one part; there being species of *larkspur* in which the seed-vessel is single.

DIVISION I. BRITISH SPECIES.

Common Larkspur.

Delphinium vulgare caeruleum.

The root is long, slender, whitish, simple, and has but few fibres.

The first leaves are small: they stand upon short footstalks, and are divided into a few segments. They are of a pale green colour, and soon fade and wither.

The stalk is round, firm, and of a pale green, divided

divided into numerous branches; and not more than six inches high.

The leaves stand irregularly on it, and are divided into many longish and narrow segments: those on the lower parts of the stalk are largest, and stand on footstalks; those toward the upper part have no footstalks, and have but few divisions.

The flowers stand on the tops of the branches: they are large, and have a long heel: their colour is a dead blue.

There follows each flower only a single capsule for the seeds; but it is easy to see that it is composed of three, united one with another. This perfectly shews how the single capsule happens in the other species.

It is common in the corn-fields in some parts of England, and flowers in June.

C. Bauhine calls it *Consolida regalis arvensis flore*

caeruleo. Others, *Delphinium segetum flore caeruleo*.

From this inconsiderable plant rise all the common varieties of the *garden larkspurs*. There are distinct species to be named hereafter; but the *common, tall, and double larkspurs* rise only from this stock by culture.

It is agglutinant, and vulnerary. The conserve of the flowers is good in those purgings to which children are subject, attended with sharp humours.

The juice of the flowers is good against disorders of the eyes; and the whole herb made into an infusion, against cholicks.

Some have disputed these virtues of the *larkspur*; but they tried the garden kind: that from the field is the right.

DIVISION II. FOREIGN SPECIES.

1. Great fennel-leaved Larkspur.

Delphinium foliis feniculi.

This is a large and very beautiful species. The root is long, simple, white, and tufted with fibres.

The leaves that rise from it are long, large, and divided into a multitude of slender, long segments; so that they have some resemblance of those of fennel; and they are of a dark green.

The stalk is robust, erect, and four feet high: it divides toward the top into many branches, and on these stand long spikes of flowers.

The leaves on the stalk resemble those from the root in their division and colour: they stand alternate, and are of a fine fresh green: their segments are numerous, and very slender.

The flowers are large, and of the form of those of the *common larkspur*, but of a deeper and more beautiful blue. This is their natural, but not their constant colour; for they are sometimes red, and sometimes white.

It is a native of Spain, and is brought into our gardens; where it has all the advantages of culture, and all the varieties attending it.

C. Bauhine calls it *Consolida regalis hortensis flore majore simplici*.

2. Broad-leaved hairy Larkspur.

Delphinium hirsutum latifolium.

The root is thick, and has few fibres.

The leaves that rise from it stand on long footstalks; and are large, hairy, and of a pale green: they are divided into many portions; but that not in the manner of the others, into narrow, grassy segments; but into about five broad parts, which are each subdivided toward the ends by deep cuts, and are notched round the edges.

The stalk is thick, robust, erect, purplish, a little hairy, and three feet high; and is not much branched; often none at all.

The leaves are numerous on it, but stand irregularly: they resemble those from the root, but are smaller.

The flowers are large, with a long spur, and

of a very beautiful blue: they stand in a long spike.

The seed-vessels follow, three after each flower; and the seed is large, and dark coloured.

It is a native of the northern parts of Europe, whence it is brought into our gardens; where, from the leaves differing from the other *larkspurs*, and in some degree resembling those of the *aconites*, it is commonly called *tall wolfs-bane*. Authors have also led themselves into this error, by not sufficiently considering that the flower is the part from which the reference to a genus is to be taken.

C. Bauhine calls it *Aconitum caeruleum hirsutum flore consolida regalis*.

3. Smooth broad-leaved Larkspur.

Delphinium latifolium glabrum.

The root is long, white, split into branches, and hung round with fibres.

The leaves that rise from it are large, broad, and deeply divided; but not at all like those of the common kind of *larkspur*, or even like the last kind: those are divided somewhat in the fingered manner, their several broad segments running from the same point which is the top of the footstalk; but these have rather the division of the pinnated kind; for their several broad segments, which are about equal in number, stand in pairs, though they are not cut in to the centre, with an odd one at the end. They are of a dusky green, and not at all hairy.

The stalk is round, upright, and two feet and a half high.

The leaves stand irregularly, and are like those from the root, divided into three or four pairs of deep segments, with an odd one at the end.

The flowers stand in spikes at the tops of the branches, and are small and red.

The seeds follow in a single capsule; but, like the *common larkspur*, a capsule made up of three.

It is a native of the Greek islands, and of the warmer parts of Europe; and flowers in June.

C. Bauhine calls it *Consolida regalis latifolia parva flore*.

G E N U S XI.

STAVESACRE.

STAPHISAGRIA.

THE leaves are thick, palmated, or divided into broad segments from their footstalk, and in the whole of a rounded figure. The flowers consist of five petals; the upper one of which is obtuse in the fore part, and runs behind into a spur: the seeds are contained in capsules, three succeeding every flower.

Linnaeus places this among the *polyandria trigynia*, and makes it a species of larkspur. The flower indeed differs little from that of the larkspur, but the leaves sufficiently.

Stavesacre has been called by that distinct name among the antients, and has peculiar virtues, which are not found in larkspur: wherefore, in works intended for utility, the distinction should be preserved and supported, so far as nature gives foundation.

Strictly, that digitated larkspur described last but one, might be called a kind of *stavesacre*. The authors who have named it, we see know not well to what genus to refer it; and it best belongs to this, a genus distinguished from larkspur by broad digitated leaves; but for the same reason that I have not called *stavesacre* a larkspur, I have not named that larkspur a *stavesacre*; that is, because it has not the qualities of *stavesacre*.

The considerate reader will see in this instance how far the strictness of method is to be indulged in works of this kind, and where it is to be made free with. There is no way besides to write at once scientifically and usefully.

Of this genus therefore, thus distinguished, there is but one species, which is not known in Britain, except in gardens.

Stavesacre.

Staphisagria.

The root is long, thick, woody, and furnished with many fibres.

The leaves that rise from it are supported on long, thick, pale, and somewhat hairy footstalks: they are large, of a deep unpleasing green, and divided down to the stalk, into five, six, or more broad indented segments.

The stalk is round, thick, upright, two feet and a half high, and very much branched.

Its leaves stand irregularly, and in shape resemble those from the root.

The flowers stand in long spikes at the tops of the branches; and are large, and of a dusky blue. They much resemble the flowers of the larkspur; but they are larger.

The seeds are contained in capsules, three of which usually, and sometimes four, follow every flower.

They are large, hard, and rough.

It is common in the Levant, and in many of the warmer parts of Europe, and thrives very well in our gardens.

Linnaeus calls it *Delphinium neltarii diphylis foliis palmatis lobis integris*. C. Bauhine, and others, from the days of Theophrastus, *Staphisagria*.

The druggists keep the seeds of *stavesacre*: they have been given in small doses as a purge in dropsies, and other desperate disorders; but they are very rough.

Some chew them in the tooth-ach, in which case they bring a great deal of water into the mouth, and sometimes are of service; but their greatest use is among the vulgar, for destroying vermin in their childrens heads; for this purpose they have the seeds coarsely powdered, and strew them on; and this never fails.

G E N U S XII.

WHITE DITTANY.

FRAXINELLA.

THE flower consists of five petals, three of which turn upwards, and two or three sideways; and it stands in a small five-leaved cup. The seeds are contained in capsules; five of which follow every flower, and grow together.

Linnaeus places this among the *decandria monogynia*, and allows it to be a genus distinct from all others; but he takes away its usual and antient name *fraxinella*, and calls it *dittamnus*. This is doubly wrong, in that it introduces at the same time confusion and error. *Dittamnus* is understood among the druggists and apothecaries as the name of another plant, the leaves of which are used in medicine, and which we shall describe in its place: this they call from the place of its growth, *Dittamnus Creticus*; and they know nothing else by that name. There were some at one time who called the roots of *fraxinella*, *dittamnus albus*; but the leaves of the other *dittany* being also white, this created confusion; wherefore it was wholly disused. This author, in the too violent spirit of reformation, has brought it in again; and with respect to the other plant called *dittany*, the *dittamnus Creticus*, he makes that a species of *origanum*.

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All the Latin writers from the earliest time call this plant *fraxinella*; and if this modern improver was displeased with that name, he might have changed it without taking that of *dittamnus*: it would certainly have been more justifiable to have called it *tragium*, that being the name by which it is called in the earliest Greek writers: the other however being universally received, is much fitter for the purpose; the Italian and Spanish *frassinella*, and most other of the European names, being formed upon that word.

Of this genus there is but one known species; and this is not seen in Britain, except in gardens.

White Dittany.

Fraxinella.

The root consists of a great number of thick, long, and tough fibres.

The leaves rising from it are very large, and beautifully pinnated: they consist each of about five pair of smaller, and a single one at the end; and stand on short footstalks. They are of a pale green colour, broad, oblong, pointed at the ends, and scarce at all serrated at the edges; and they resemble in some degree the leaves of the ash-tree, in miniature.

The stalks rise amidst these leaves, which soon after fade and perish.

They are robust, firm, branched, and two or three feet high.

Their leaves stand alternately; and are altogether like those from the root, but something smaller.

The flowers are of a beautiful pale red, often white; and have each ten long threads, which add to their beauty.

The seeds follow in five flattened pods.

The tops of this plant have a reddish hairiness, and there is a resinous matter about them which

sticks to the fingers on touching them, and has a very fragrant smell.

This resin is so inflammable, that if a lighted candle be brought near the stalk of the plant, so that the flame touch any of the resin, the whole takes fire in an instant, and goes off with a remarkable explosion. The plant will not be destroyed by this, but will recover its resinous matter again in a few days; and the experiment may be repeated with success.

It is a native of Italy and France, but stands very well in our gardens.

Its universal name among authors is *fraxinella*: it obtained this from the resemblance of its leaves to those of the ash.

The bark of the root contains the principal virtue of the plant; and our druggists keep it: but they often sell it old and decayed, and no root loses its virtue sooner. It is a cordial and sudorific when fresh dried. The antients esteemed it a sovereign remedy against poisons and venomous bites: it is in esteem in some places as a diuretick and deobstruent, and against worms. If we had it more frequently fresh, and possessed of its full virtues, we should value it highly.

G E N U S XIII.

MONKS-HOOD.

ACONITUM.

THE flower consists of five petals, and has no cup: the petals of the flower are of a singular form and situation: one stands uppermost, two are placed sideways, and two below; the upper one is hooded; the side petals are broad, roundish, and stand inclining to one another; and the two lower are longer, and droop downwards: within the flower there also stand two glandules or nectaria on little pedicles, and with crooked tails. The seeds are in capsules, three after every flower.

Linnaeus places this among the *polyandria trigynia*: the flower is so extremely singular, that it is wonderful it did not keep the genus distinct, and the species together in all authors. We must be surprised to see larkspurs brought into it, the flower in this genus not having that great characteristic of the larkspur, the spur or tail.

1. Blue Monks-Hood.

Aconitum ceruleum vulgare.

The root is long, thick, hard, divided into several parts, and furnished with numerous fibres.

The leaves rising from it are very large, of a beautiful green, and divided into numerous, narrow, long segments.

The stalk is robust, erect, and five feet high.

The leaves stand irregularly, and in form resemble those from the root; but they are smaller.

They are placed on long footstalks, and are divided to the stalk, into six or more long, narrow

segments, which are again deeply notched at the edges, and often subdivided into others. These are of a deep, but pleasant green, and have a line running along their centre.

The flowers are numerous, and of a beautiful blue: they stand in long spikes on the tops of the branches, and are large, and of a fine full colour.

They are followed by capsules, three after every flower; in which are large rough seeds.

It is a native of Germany, and many of the northern parts of Europe; and flowers in July.

J. Bauhine calls it *Aconitum ceruleum*, five *NAPELLUS*. Lobel, *Napellus verus*; and most others simply *Napellus*.

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It is a poisonous plant. Dodonæus gives an account of five persons who eat the root of it, through a mistake, in their food at Antwerp, and all died. There have been other instances of the same kind; and it is said to destroy such wild beasts as taste or eat it. There is a tradition, how true we know not, that wolves tear up the root of some plants in winter for their food, and sometimes mistaking this, perish by its poison: hence it has obtained the name of *wolfbane*. It is said, that, when kept in gardens, it is less fatal than wild; which is probable: all plants having their faculties, of whatever kind, more strong in their wild state than when brought into culture.

2. Great purple Monks-Hood.

Aconitum purpureum maximum.

The root is long, large, and furnished with abundance of fibres.

The first leaves are large, broad, and divided into a few great segments.

The stalk rises to five feet in height, and is robust, firm, and very little branched.

The leaves stand alternately, and are like those from the root: they are divided down to the footstalk, into five principal parts, the middle one of which is largest. They are of a pale green, and deeply ferrated.

The flowers stand in long spikes at the tops of the branches; and are very large, and of a beautiful deep purple: but they vary in this respect, being sometimes red or flesh coloured.

The seed-vessels follow as in the other species, but the number is not certain; usually there are three, sometimes four.

It is common in the mountains of Germany, and flowers in August.

J. Bauhine calls it *Aconitum lycoflorum flore maximo*. C. Bauhine, *Aconitum ceruleo purpureo flore maximo, sive Napellus quartus*.

3. Yellow Monks-Hood.

Aconitum flora luteo.

The root is composed of a multitude of thick entangled fibres.

The first leaves are large, broad, and in a manner rounded in their general form, but divided deeply into about five parts.

The stalk is robust, firm, erect, and four feet high.

The leaves stand irregularly on it, and have long footstalks: they are like those from the root, divided deeply into five parts; and those are sharp at the points, and ferrated at the edges.

The flowers are smaller than those of the common monks-hood, and of a beautiful yellow.

The seeds follow in capsules, three after every flower.

It is a native of many parts of Europe, and flowers in July.

The flowers are sometimes of a deep yellow, sometimes straw-coloured, or whitish.

C. Bauhine calls it *Aconitum lycoflorum luteum*. J. Bauhine, *Aconitum folio platani flore luteo pal. lescente*.

4. Little, blue, flowered Monks-Hood.

Aconitum ceruleum minus.

The root is composed of a vast number of fibres interwoven with one another.

The first leaves stand on long footstalks; and are broad, and indented deeply, rather than divided into segments.

The stalk is slender, purplish, and about two feet and a half high, but not very firmly erect.

The leaves stand irregularly on it: they are supported on footstalks, and are divided somewhat deeper than those from the root, but not so deeply as in most of the other species: the division is into three principal parts, sometimes into five; and these are cut deeply at the edges.

The flowers are large, and of a deep and beautiful blue: they stand in a particular manner, not in long spikes, as those of the others, but singly at the tops of slender stalks rising from the main stem.

It is a native of Italy, and flowers in May.

C. Bauhine calls it *Aconitum ceruleum minus, sive Napellus minor*. Dodonæus, *Aconitum parvum ceruleum*.

All these species partake of the poisonous nature of the first kind; but there is one resembling them in form, and of the same genus that is salutary, and is esteemed an antidote in particular against their poison.

5. Wholesome Monks-Hood.

Antibora.

The root is composed of many irregular, thick, and tuberous pieces.

The first leaves are supported on long footstalks, and are divided to the bottom into five segments: these are broad, and notched at the edges.

The leaves on it stand irregularly, and are divided into numerous, narrow, plain segments: they are of a pale green on the upper-side, and whitish underneath.

The flowers stand at the tops of the stalks and branches, and are like of the other monks-hood in form; of a beautiful yellow colour; and of a pleasant, though slight smell.

The seeds follow in capsules, three, four, or five after each flower. The number of these is uncertain, but five is the most common. It is a native of Germany, and flowers in June.

C. Bauhine calls it *Aconitum salutarium, sive Antibora*. Others, *Antibora*, and *Antibora*.

The root is kept in the druggists shops, and was once much used as a cordial and sudorific; there have been mistakes about the kind, and they have been fatal. When fresh dried, this root purges vehemently; but that quality goes off in keeping. This is not particular to this plant: but it is a very sufficient reason why it never should be used; because it will be impossible for the physician who prescribes it to know its strength.

G E

G E N U S XIV.

WINTER WOLFSBANE.

CAMMARUM.

THE flower stands in the centre of the leaf, and has no other cup; it is composed of six petals: the seeds are contained in capsules, in an uncertain number, properly six, but more frequently only four or five, after every flower.

No plant has been called by so many names, or referred to so many different genera, as this; and all improperly. The error has been in the authors not perceiving that it was a plant *sui generis*, and belonged to none.

Linnaeus places it among his *polyandria polygynia*, making it a species of hellebore: but it has six petals to the flower; whereas the hellebores have but five. This is a very essential distinction.

C. Bauhine calls it an *aconite*; but the aconites have only five petals in the flower, and those disposed in a particular manner: whereas in this there are six; and they are equal, and stand regularly.

J. Bauhine makes it a *ranunculus*, forgetting that the *ranunculi* have naked seeds, and this plant capsules. By some it is called *bulbus unifolius*; a very uncertain name, and also improper; the root being not bulbous, but tuberous: and by others it is called an *elleborine*; a genus from which it differs in form and characters more than from all.

In this uncertainty and impropriety of a name, I have given it a new one, distinct as the plant itself from all the other genera: this is *cammarum*, from an old Greek word *καμμαρον*, used by Dioscorides and others as a distinction to some of their aconites; though, from their shortness, it is not easy to say which. In Dioscorides it seems to mean the same with his *pardalianthes*; but in others it rather appears to point at this plant; which there is also reason to believe is the real and proper aconite of Theophrastus, and the earlier Greeks. I have however preserved its common English name.

We see, though commonly called by the name of *wolfbane*, it is a plant altogether different from that genus, and properly constitutes one of its own; I have therefore called it by a new one. But as the plant is so perfectly known by its old English name, and by the Latin one, of which that is a translation, *aconitum hyemale*, and is one which, from its power of doing harm, should not be rendered liable to be mistaken, great danger, as well as the loss of great good, being necessarily to be guarded against in the consideration of changing of names, I have preserved its common with its new one; and wish, in cases of this kind, the same practice may be followed by others.

Of this singular genus there is but one known species, which is very common in our gardens.

Winter Wolfsbane.

Cammarum.

The root is thick, tuberous, and large; black on the outside, white within, and of a violently acrid and burning taste. It has a few fibres; and, when it has stood some time on the ground, has other tuberous pieces growing from it.

The leaf and plant are one thing, for there is no other stalk.

Many footstalks rise from different parts of the root, each of which has at its top one leaf. The footstalk is inserted at the centre; and the leaf is of a rounded figure, but very deeply divided into narrow segments.

The flower grows in the centre of the leaf, and is large and yellow. It consists of six petals, with a great tuft of threads in the middle, and among them the rudiments of several capsules.

When the flower falls, these ripen, and contain several yellowish, rounded, and flat seeds.

It is a native of Germany, and flowers in the depth of winter.

The root is a violent cathartick in a very small dose; and in any thing a larger quantity it is to be considered as a fatal poison.

G E N U S XV.

PIONY.

PÆONIA.

THE leaves are divided into many parts. The flowers are large, and consist of five petals: they stand in a five-leaved cup, and are succeeded by large capsules, two after every flower: The roots are tuberous.

Linnaeus places this among his *polyandria digynia*, there being numerous filaments, and the rudiments of the two capsules in the centre of every flower. In this, however, he acknowledges there is no certainty; for, instead of two, these rudiments are in some species three, four, or five, to each flower.

flower. This shews the weakness of establishing a method on such parts of plants. There are enough that are determinate and certain; these are frequently precarious and inconstant: the others also, as well as more certain, are larger, and more conspicuous.

1. Male Piony.

Paonia folio nigricante.

The root is large, and irregularly tuberous: it naturally consists of a thick, long, main body, to which there are frequently long tuberous pieces connected.

The leaves rising from it stand on thick and robust footstalks: they are very large, divided into many parts, or rather composed of many smaller, set upon a divided rib; and are of a blackish green.

The stalk is robust, round, upright, and three feet high.

Its leaves stand irregularly, and are like those from the root, but smaller: they are divided in the same manner; and the separate parts are broad, oblong, and pointed.

The flower is very large, and stands upon the top of the stalk: it is composed of five broad, obtuse petals: they are of a very pale, whitish colour, with a tinge of purplish, and with purple veins: they have numerous short threads in the centre, on which stand deep yellow buttons.

The seed-vessels are large, whitish, and shaped like horns: they vary in number; sometimes there are only two, but oftener three or five.

It is a native of the dark woods of Switzerland, and some other parts of Europe, and flowers in May.

C. Bauhine calls it *Paonia folio nigricante splendido que mas.* Others, *Paonia mas.*

2. Female Piony.

Paonia foliis longioribus.

The root is composed of a great number of longish, thick, tuberous pieces, connected by slender tough fibres to a small head.

The leaves are numerous: they stand on long footstalks, and are divided into many parts, as in the male; but these separate are larger and narrower, as is the whole leaf; and the colour is not the deep black hue of the other, but a pale, though not unpleasant green, on the upper side; and they are whitish and mealy underneath.

The stalk is robust, firm, round, and upright: it is two feet in height, and branched. It is generally redish at the places whence the leaves proceed, elsewhere green.

The leaves stand irregularly on it, and are like those from the root, composed of long parts, and irregularly divided.

The flowers are large, but not so large as in the preceding species: they are of a deep colour, and have in the same manner numerous threads, with yellow buttons in the centre.

The seed-vessels are sometimes only two, sometimes more; and in this, as in the other, when they split open, and the seeds are ripe, they make a beautiful appearance.

It is a native of the northern parts of Europe

in thick forests, and flowers in the beginning of June.

It is more common in our gardens than the male; though the male is esteemed to have most virtue; and it is from this species that our fine, large, double piones are raised by culture.

C. Bauhine calls it *Paonia communis, vel femina.* Others, *Paonia vulgaris*, and *Paonia femina.*

3. Dwarf Piony.

Paonia pumila foliis radicalibus digitatis.

The root is composed of a long and large body, and has several great irregular tuberous pieces hanging to it.

The leaves that rise from it stand on long footstalks: they are not formed of several smaller placed upon a divided rib, but are of a palmated form, cut down to the stalk into nine or more long and slender divisions.

The stalk is small, round, weak, whitish, and a foot and a half high.

The leaves are placed alternately on it; and those from the root are only digitated, these are branched: they are composed of three principal parts, and each of these of several narrow and long segments.

The flower stands on the top of the stalk; and is large, of a deep red, and beautiful: it naturally has only five petals; but we see it in gardens with eight or more, and often double.

The seeds are preserved in three or more capsules.

This is a native of Spain, and the warmer parts of Europe; and flowers in June.

C. Bauhine calls it *Paonia tenuius laciniata subtus pubescens flore purpureo.* Others, *Paonia femina pumila.*

The roots of piony are celebrated, and with great reason, against diseases of the head and nerves. Those of the male piony are best. The common practice of those who sell herbs and roots in our markets, is to bring the roots of the female in their place; but the difference will be known by the descriptions here given. The male piony, as the less beautiful, is the least cultivated; but in those places where the roots are propagated for the purposes of medicine, no other should have admittance.

Beside being good in nervous cases, it is excellent in obstructions of the liver; and there are very considerable cures recorded to have been performed by it.

The best way of giving it is in the powder of the root, fresh dried: twelve grains is a dose, and will do great service in all nervous complaints, headaches, and convulsions.

It will alone cure that disagreeable disorder, the night-mare.

There is an opinion, that being hung about the neck of children, it will prevent the convulsive disorders to which they are liable in cutting their teeth;

teeth; and hence arose the practice of anodyne necklaces. The opinion, however slightly founded, is as old as Galen: he names a girl who was kept free from the epilepsy eight months by wearing a piony root about her neck, and immediately seized with the disease on dropping it.

There are other grave authors who confirm the same account: but whatever may be its virtue in this manner of application, this I know from experience, that taken inwardly it is a very great and excellent medicine, and deserves to be brought more into use.

GENUS XVI.

INDIAN MALLOW.

ABUTILON.

THE flower is composed of five petals: the seeds are contained in capsules, a great number of which follow every flower. The leaves are undivided.

Linnaeus places this among his *monadelphia decandria*, and joins it with some others not allied to it, under the name of *sida*: others have joined it with the mallows, which is a much greater error; those plants belonging to a former class, as having their seeds naked, whereas the *abutilon* has them enclosed in capsules, as the rest of this class.

1. Yellow Indian Mallow.

Abutilon flore flavo.

The root is long, thick, and furnished with many strong fibres.

The leaves that rise from it stand on long footstalks: they are large, and of a heart-fashioned shape, indented at the stalk, and pointed at the end. They are of a whitish colour, soft to the touch, and a little notched at the edges.

The stalk is robust, firm, upright, branched, and three foot high: it is whitish and woody: The outer rind easily slips off, and there is a woody substance within.

The leaves stand irregularly on it: they have slender footstalks, and are of the same form with those from the root, and of the same softness.

The flowers are moderately large, and of a beautiful strong yellow, striated, and full of threads, with their buttons in the centre.

The capsules which follow each flower are numerous, ten, twelve, or more. They are connected at their tops; so that they form a large head.

It is a native of the East, and of some parts of Europe. It flowers in June.

C. Bauhine calls it *Althea Theophrasti flore luteo.* Others, *Abutilon.*

2. White Indian Mallow.

Abutilon album.

The root is a small, long body, producing a great number of thick and large fibres.

The first leaves are large, oblong, sharp pointed, and stand on slender footstalks: they are of a pale green, and somewhat hairy, but have not the softness of the others.

The stalk is round, upright, firm, hairy, and very little branched: the leaves hang irregularly upon it, drooping down. They are of the same form with those from the root, but smaller.

The flowers stand on long footstalks, and are white, or nearly so, with a deep yellowness in the centre.

The seed-vessels are numerous, and form a large head.

It is frequent in Asia, and flowers in June.

J. Bauhine calls it *Abutilon Indicum.*

The virtues of these plants are not known in our part of the world; but in the East they are famous in the gravel, and suppressions of urine. They are of the mallow kind, as the tasting of their roots will shew any one accustomed to these researches; but they are not so mucilaginous as our European species, so that they have probably less virtue.

They are also commended in fevers, but we know not if with reason.

GENUS XVII.

SWEETBEARD.

BARBACAPRÆ.

THE flower is small, and consists of five petals. It stands in a small cup divided into five segments, and is followed by three small, separate capsules. The flowers stand in long tufts, and the leaves are winged.

There are male and female plants in this genus, but they differ only in this, that on the male plants the flowers have only threads, and in the female only the rudiments of the capsules in the centre.

Linnaeus, in his *Genera Plantarum*, places this among the *diœcia polyandria*; for this reason making it a distinct genus, under the name of *aruncus*; but in his *Species Plantarum* it is removed from that class. It there stands among the *icosandria pentagynia*, and is made a species of *spiræa*.

I can without much censure reconcile this contradiction: there are plants of the *barba capræ* that have flowers with both the threads, and rudiments of the capsules in them; though there are others that have only male, and others that have only female flowers. This is the language of the modern botanists; and according to the same dialect, those flowers which have both the threads and rudiments of capsules are called hermaphrodites: these led Linnæus to place the plant among his *icosandria*, against his former judgment. He had truth on his side in both cases; for it is nature varies: but we have hence this lesson, Those accidents are unfit for the classical distinctions of plants, which are not constant and certain; this is not the only genus in which there are sometimes male flowers on one plant and female on another, though there are also in some plants of this kind hermaphrodite flowers: it is a proof added to the many we have had occasion to mention before, and which will be strengthened by many others hereafter, that this method was taken up too hastily, and that upon better knowledge of nature, men will be obliged to lay it down.

Of this genus there is but one known species. It has much the aspect of the common meadowweet, except in the disposition of the flowers. Most authors have joined it with that plant; and indeed it comes very near its nature. The seeds of meadowweet are covered, as we have shewn, with a kind of crust; and in this plant they have but very rude capsules. However, the distinction is preserved: nature on all occasions goes off gradually from one class to another: this would have been seen if men had regarded the greater and more distinctive parts of plants with that attention they have ill bestowed upon the more minute and frivolous. It is here the gentle step is made from the herbs with several naked seeds after every flower, to those in which each flower is followed by several capsules.

Sweetbeard.

Barba Capræ.

The root is large, thick, long, and furnished with many fibres. It has a redish bark, a woody substance within that, and in the central part a spongy pith.

The leaves rise in a great tuft, but commonly wither when the stalk gets strength. They are placed on long footstalks, and are composed of three principal parts, each of which consists of about five smaller leaves, disposed in the pinnated manner in two pairs, with an odd one at the end: these are oblong, serrated, and pointed at the ends.

The stalks are four feet high, round, striated, erect, and but little branched. They have the same kind of leaves on them, and at their tops bear numerous flowers in long strings, several connected toward the bottom, or rising so near one another that they form a tuft resembling a long, white beard.

The flowers are white, little, and of a slight but agreeable smell.

It is a native of the warmer parts of Europe, and flowers in July.

C. Bauhine calls it *Barba capræ floribus oblongis*. J. Bauhine, *Barba capri*. We in English sometimes translating the Latin name, call it *goats-beard*; but as that is with us the name of another plant, I have taken the liberty of varying it a little, preserving the word beard, and adding for its farther character, its fragrant scent; many of the common writers have called it *ulmaria major*, the greater meadowsweet.

The flowers are esteemed cordial and sudorifick. The bark of the root also possesses the same virtue, with a mixture of astringency. This recommends it among the country practitioners, where common, in fevers attended with diarrhoeas.

These are the plants properly and distinctly belonging to the present class; from which we are to advance to another, which is very comprehensive, containing the plants, with a flower consisting of one petal, and succeeded by a single capsule: but in our way we are to regard an intermediate genus, which happily connects these two, or according to the custom of nature, here often remarked, makes the progression easy.

The END of the SECOND CLASS.

THE

THE

BRITISH HERBAL.

CLASS III.

Plants whose flower consists of a SINGLE PETAL, and is succeeded by SEVERAL CAPSULES.

THIS is a class not distinguished by any author, though established by nature in the plainest, most determinate, and most distinct manner. It contains only a few genera, but it serves very happily in forming a natural method, and it is wonderful men of science have overlooked it: not that Linnæus has, for his attention has been wholly bent on the lesser, so that he must naturally lose sight of these greater objects; but that Ray in particular should not observe it is strange.

It is here the first instance occurs of the necessity there is, in a work of this kind, after consulting the best authors, to examine nature; and where they are defective, to complete the system from her stores.

We have begun with plants whose flower consisting of several petals is followed by many naked seeds; we have given in the second class plants whose flower consists, as in those in the first, of several petals, and is followed by several capsules containing the seeds: from these, following our method in those plants whose flowers are largest, plainest, and most conspicuous, we should be led, if the systems of others only were our guides, to those plants whose flower consists of a single petal, and is followed by a single capsule; but observing nature, we perceive that she has placed between these an intermediate class: this consists of those plants which have a flower formed of a single leaf, and followed by more than one capsule. These are the plants we comprise in our present new established class, placing it between the second and fourth; between those plants whose flower consists of several petals, and is followed by several capsules, and those which have it of one petal, followed by one capsule. Thus we shall trace nature in her own path; and view her as she makes her regular progress and her gradual descent with no greater gap between.

Certainly in all other systems there was an interruption here; but this small arrangement fills up the space, and makes all regular.

Linnæus scatters the few plants belonging to this class over his works, and Tournefort, and Ray, not attending to the distinction, great and obvious as it is, of plants with a flower composed of many petals, and such as have it consisting but of one, place these confusedly among others.

SERIES I.

NATIVES OF BRITAIN.

GENUS I.

NAVELWORT.

COTYLEDON.

THE flower consists of a single petal; this is of a tubulated form, and divided into several segments at the edge. The seeds are contained in capsules, five of which follow every flower.

Linnæus places this among his *decandria pentagynia*, between woodforrel, which has its seeds in a single capsule, and stonecrop, which has numerous petals in the flower. There are indeed in this ten threads in the centre of each flower, and five rudiments of capsules among them; this, in the system proposed

posed by that author, justifies the placing it in that class; but when we see that its flower consists of a single petal, and that its fruit is a cluster of five capules, we may say with freedom, nature has not placed it between stonecrop and woodforrel.

There is a plant usually confounded with the houseleek that will naturally follow it, though in a separate genus; and this is the only one with which nature has given it any alliance.

DIVISION I. BRITISH SPECIES.

Wall Pennywort.

Cotyledon radice tuberosa.

The root is roundish, tuberous, and furnished with many fibres from the bottom.

The leaves are numerous, and rise in a thick, regular cluster. They are supported on footstalks of three inches long, and these are inserted, not at one side, but in the centre, the leaf spreading every way into roundness from them. These leaves are of a bluish green, prettily notched round the edges, and of a watery taste.

The stalk is eight inches high, and is round, and tolerably firm. Toward the top it divides into two or three branches, and on these hang numerous flowers in long spikes.

They are small, greenish, and dented at the rim.

The capules are oblong, swelled, and pointed, and they contain numerous small seeds.

It is a native of England, but not common. I have seen it on walls near Shepon Mallet in Somersetshire.

C. Bauhine calls it *Cotyledon major*. J. Bauhine, *Cotyledon vera radice tuberosa*. In English we call it *kidneywort*, *navelwort*, and from its growing on walls and the roundness of its leaves, which are supposed to resemble pieces of money, *wallpennywort*.

It is cooling and diuretick, but is not much used.

DIVISION II. FOREIGN SPECIES.

Yellow Navelwort.

Cotyledon flore aureo.

The root is thick, and often tuberous, and has numerous fibres.

The first leaves rise in a large cluster, and are of an oval figure, broadest at the top, and dented at the edges. They are of a bluish green colour, of a fleshy substance, and of an insipid taste.

The stalk is round, smooth, greenish or purplish, erect, and but little branched.

Its leaves stand irregularly: they have no footstalks, but join the stalk by a broad base: they are of the same shape with those from the root, but somewhat narrower and more indented.

The flowers are very numerous and beautiful. They stand in clusters on slender footstalks, and are tubular, divided into four sharp segments at the edge, and of a beautiful yellow.

The capules are small, and pointed. As the segments of the flower are four, these also are four;

and the threads, which are ten in the common kind, are only eight in this. Linnæus, however, ranks it in the same genus with the other, acknowledging this variation. It is a proof that, however he has taught others to consider the number of threads constituting the classical, as well as general characters of plants, himself knew very well they were not sufficiently determinate for that purpose.

Those who love needless distinctions may make two genera of these two species, and give a new name to the last; but they who study plants for use will hold such distinctions very slightly. This species is a native of Egypt and the East Indies.

Van Royen calls it *Cotyledon foliis laciniatis floribus quadrifidis*.

They use it in Egypt as a diuretick, giving the juice in a large quantity against the gravel.

GENUS II.

PERIWINKLE.

PERIVINCA.

THE flower consists of a single petal which is of a tubular form in the lower part, growing wider upwards, and at the rim is divided into five segments. The seeds are contained in long capules, two of which follow every flower.

Linnæus places this among the *pentandria monogynia*, because there are in each flower five threads, and but a single filament from two rudiments of capules.

His general rule for the arrangement of plants according to these parts, is from the division of the styles, or number rising from the rudiments, which he calls germina: this style serves to receive the dust from the buttons on the threads, and to convey it to the rudiments. The style in *periwinkle* is single indeed, but the rudiments, which are the essential parts, that being but subservient to them, are two; therefore, as himself acknowledges, this genus more justly belongs to the *digynia*, or those which have

have the female parts double. One should smile at the perplexity that rises from this unsubstantial method, but that it has misled so many. What is an author to do, who has set up a system dependent on complex, as well as minute parts, when one portion of the same object, as in this instance, determines the plant to one assortment, and another to another. It is to this we owe those frequent exceptions the author has himself made to his general characters; and the many others, those who shall observe nature heedfully, must make for him.

DIVISION I. BRITISH SPECIES.

Small Periwinkle.

Perivincia minor.

The root is long, tough, slender, and full of fibres.

The stalks are long, but weak. They are tough, but want firmness; so that they lie upon the ground, and frequently take root at the joints: hence, when the plant has stood any time we commonly see a thick tuft of it.

The leaves stand in pairs: they are oblong, broad, even at the edges, pointed at the ends, and

have no footstalks. They are of a firm substance, and deep green colour.

The flowers stand on long footstalks, which rise from the bosoms of the leaves: they are large, and of a beautiful blue.

The seed vessels are sharp-pointed, two follow every flower, and there are in them many large, oblong seeds.

It is a native of our woods, but not common. It flowers in June.

C. Bauhine calls it *Clematis daphnoides minor*. Others, simply, *Clematis daphnoides*, or *Vinca perivincia*.

DIVISION II. FOREIGN SPECIES.

Great Periwinkle.

Perivincia major.

The root is a great tuft of fibres.

The stalks are numerous, firm, woody, and tolerably erect.

The leaves stand in pairs, and are placed on short footstalks; they are broader than those of the small kind in proportion to their length, and are more of an oval figure; they are even at the edges, and broad at the base, and pointed at the ends.

The flowers stand on long footstalks, rising from the bosoms of the leaves, and are large and blue.

The seeds follow in two long capules, pointed at the ends.

It is frequent in the woods of Germany, and flowers in July.

C. Bauhine calls it *Clematis daphnoides major*. Others, *Vinca perivincia major*.

Some have supposed this a variety of the preceding species, imagining that it only differed in size; but they should have observed the footstalks and form of the leaves, and they would have found that the size of the plants, though the most obvious, is not the most essential mark of their distinction.

GENUS II.

SENGREEN.

AIZOON.

THE flower is large, and consists of a single petal slightly divided into ten segments. The seeds are contained in capules, a great number of which succeed every flower. The leaves grow in round clusters in the manner of these of houseleek; which the plant in its general form greatly resembles.

No author has separated this, perfectly singular as it is, or allowed it a distinct genus: it has been universally ranked as a species of houseleek, though it belongs to a separate class.

Linnæus makes it a species of *sempervivum*; though he has established, in the general character, that *sempervivum* has a flower consisting of twelve petals, whereas the flower of this plant has but one. This refers it plainly and necessarily to the present class, and renders a new name necessary for it; but, to avoid perplexity, I have given it one that has always been supposed to belong, though in an undetermined manner, to the houseleek kind: it is very well applicable to this plant; the leaves continuing all the year fresh and green.

Of this genus there is but one known species.

Sengreen.

Aizoon.

The root is long, slender, and edged with fibres.

The leaves that rise from it are fleshy, oblong, and pointed: they grow in natural clusters, but in a N. VI.

very singular manner. The clusters are of a roundish form, as in the common houseleek, but have not that open division: they are rather globular. In winter they are of a greyish green, and stand separate, as in other plants of this kind; but toward spring they assume another form: they have a multitude of long, fine, and slender hairs growing

ing among them; and these, connecting their tops, form a variety of angular figures, so that the whole tuft of the plant appears as if wrought about with cobwebs.

From the centre of the larger of these tufts, rises a stalk of a foot high, round, thick, fleshy: toward the lower part it is covered with leaves, but in a manner naked higher up; the leaves there standing separate and distant.

These are of the shape of the lower leaves, but narrower: they are fleshy, and they, as well as the stalk, usually are reddish.

At the top there spring two or three little

branches, which spread out and support the flowers.

These are very large, and of a beautiful red. They are not like those of the houseleek, composed of twelve petals; but formed of one only, and that divided but into ten segments.

The seeds are contained in capsules, several of which succeed every flower.

It is a common plant on the Alps, and in many parts of Switzerland; where it roots among the most naked rocks, and when in flower makes a beautiful appearance.

C. Bauhine calls it *Sedum montanum tementosum*.

The END of the THIRD CLASS.



THE

THE BRITISH HERBAL.

CLASS IV.

Plants with the flower formed of a SINGLE PETAL, plain, and of a regular form, and succeeded by a SINGLE CAPSULE.

THIS is a class of nature's forming, and is perfectly distinct from all the others; yet the modern methods in botany do not preserve it.

The plants which compose it are very numerous: they are the most plainly and evidently connected together by nature, perhaps of any in the whole vegetable kingdom; yet Linnaeus scatters and separates them throughout his works; and Mr. Ray, who has collected and preserved them together, includes among them those of our fifth or next succeeding class, which have the petal though single, yet far from plain.

He distributes these by a subdivision, under two heads; but they properly constitute two classes. Bindweed and the bell-flower are naturally allied by the shape of their flower, and belong to the same class; but bindweed and toadflax, though they agree in having a single capsule after every flower, and their flower composed of one petal only; yet are so palpably and evidently different by the form of that petal, that they are naturally separated.

SERIES I.

NATIVES OF BRITAIN.

GENUS I.

HENBANE.

HYOSCYAMUS.

THE flower consists of a single petal, and is tubular, and divided lightly into four segments at the rim: these are all obtuse, but one is larger than the others. The seed-vessel is a single capsule, covered at the top, and divided into two parts within.

Linnaeus places this among the *pentandria monogynia*; the threads in the flower being five in number, and the rudiments of the fruit single.

DIVISION I. BRITISH SPECIES.

Common Henbane.

Hyoscyamus vulgaris.

The root is very long, tough, white, woody, and furnished with many fibres.

The stalks are round, hard, woody, tough, and variously and irregularly branched.

The leaves stand irregularly: they surround the stalk at their base; and are long, narrowish,

pointed at the ends, and very deeply notched at the edges. Their colour is a greyish green, and they have a very ill smell.

The flowers are numerous, singular, and not without beauty when examined nearly: they are large, and open at the top, of a greyish dusky colour, a tinct very uncommon in flowers, and full of veins.

The seed-vessels follow one after every flower; and

Plut. 7
Fig. 13

and they are large, and contain a great quantity of seeds: these are brown, rough, and of an irregular figure.

It is common in waste places, and flowers in July.

C. Bauhine calls it *Hyoscyamus vulgaris et niger*. Others, *Hyoscyamus niger*.

This is the only species of *henbane* that is a native of Britain, and it is poisonous in its qualities.

DIVISION II. FOREIGN SPECIES.

1. White Henbane.

Hyoscyamus albus.

The root is long, thick, white, and furnished with numerous fibres.

The leaves that rise from it stand on long hollowed footstalks; so that in the first appearance it differs greatly from the other, whose radical leaves rise without any stalk from the ground: these are large, broad at the base, bluntly pointed, and deeply sinuated at the edges.

The stalk is round, firm, hairy, and three feet high: it is more erect, and less branched, than the other.

The leaves stand irregularly: they have long footstalks, and are like those from the root.

The flowers grow singly in the bosoms of the leaves, and they have short footstalks, and are large and white. The whole plant is thickly hairy.

It is a native of the warmer parts of Europe, and flowers in August.

C. Bauhine calls it *Hyoscyamus albus major*. Others, *Hyoscyamus albus*.

Those who, following C. Bauhine, call this the *greater white henbane*, describe a variety of it under the name of the *smaller white henbane*.

This differs from the other in nothing, but that it has grown on a barren soil, and is starved and stunted.

2. Golden Henbane.

Hyoscyamus aureus.

The root is long, thick, woody, white, and furnished with fibres.

The leaves that rise from it are broad, short, deeply dented, and supported on long footstalks: they are of a whitish green, and soft to the touch.

The stalks are numerous, weak, whitish, and a foot and a half high.

The leaves stand irregularly on them, and have long footstalks: they in all things resemble those from the root.

The flowers are moderately large, and of a beautiful gold yellow: they are more deeply divided than those of the *common henbane*, and have longish footstalks: they stand partly at the top of the plant, and partly in the bosoms of the leaves.

A single seed-vessel follows each flower, containing numerous seeds.

It is a native of the Greek islands and of Egypt, and flowers in July.

C. Bauhine calls it *Hyoscyamus Creticus luteus*; but he, without much reason, divides it into two species, a greater and lesser: these are only varieties.

Alpinus calls it *Hyoscyamus aureus*.

3. Little Henbane.

Hyoscyamus pusillus.

The root is white, small, and longish, and has a few fibres.

The leaves rise in a little cluster of five or six together, and are supported on long, slender footstalks: they are oblong, broadest in the middle, and deeply indented at the edge.

The stalk rises among these; and is round, slender, upright, not at all branched, and eight or ten inches high.

The leaves stand at distances alternately: they are of the same form with those from the root, but smaller, and not at all indented at the edge: they are also blunter at the point.

The flowers are moderately large, and of a beautiful yellow; one stands usually in the bosom of each leaf from top to bottom; and frequently there are little tufts of young leaves rise with them.

The seeds are large, and are contained in a single capsule.

It is a native of many parts of America, and flowers in July.

Plukenet calls it *Hyoscyamus pusillus aureus americanus antirrhini foliis glabris*.

All the *henbanes* are powerfully soporifick, in so much that many of the species are accounted poisonous: none so much as the common English *henbane*: but the apothecaries have evidence that the charge is not altogether well grounded. What they are ordered to use in some compositions, is the seed of the *white henbane*; but those of the black being more readily at hand, are too often sold to them by the druggists in their place.

This seed however is more violent in its operations, and should be excluded the shops, the others having all the good qualities without the danger.

The seed of the *white henbane* is the best of all: it is cooling, emollient, and excellent against pain; it also moderately and quietly produces sleep, without disturbing the head in the manner of the black.

It is excellent in coughs, it abates the pain in cholicks, and is of great virtue against spitting of blood, profluvia of the menses, and all other hemorrhages.

The leaves boiled in milk and water, and applied as a pultice, are excellent in the sciatica. The root has the same virtue with the seeds in an inferior degree; and is hung about childrens necks in some places, as the piony root is in others, in order to their cutting their teeth without pain. In many parts they make necklaces, with pieces of *henbane* and pieces of the piony root interchangeably, and relate wonderful things concerning their effects. Of this we have spoken before, under the article *Piony*.

GENUS II.

BINDWEED.

CONVOLVULUS.

THE flower is large, and consists of a single petal, spread open, rarely indented, and often folded: the seeds are numerous, and are contained in a single capsule: the cup is formed of a single leaf, divided into five parts; and remains with the capsule when the flower is fallen.

Linnaeus places this among the *pentandria monogynia*; there being five threads in every flower, and a single rudiment of a fruit or capsule.

DIVISION I. BRITISH SPECIES.

1. Great Bindweed.

Convolvulus major.

The root is long, white, slender, and creeping.

The stalks are numerous, round, slender, weak, and very long: they are smooth, of a yellowish colour; and tough, and will climb about bushes till they reach ten or fifteen feet in height.

The leaves stand irregularly, and have long footstalks: they are large, broad, cut off as it were behind at the stalk, not going to sharp points, as in the lesser kind, and sharp at the end: they are thin, smooth, undivided at the edges, and of a pale green.

The flowers rise from the bosom of the leaves, and stand singly on long footstalks: they are very large and white.

The seed-vessel is large, and the seeds are numerous.

It is common in hedges, and flowers all summer.

C. Bauhine calls it *Convolvulus major albus*. Others, *Convolvulus major*. Our common people call it *Bearbind*.

2. Common little Bindweed.

Convolvulus minor vulgaris.

The root is slender, and has many fibres.

The stalks are numerous, round, green, weak, and almost a foot long: the plant is not able to support itself; but it does not climb among bushes as the *great bindweed*, but straggles upon the ground.

The leaves stand irregularly, and are numerous: they are broad, short, of a pale green, undivided at the edges, pointed at the end, and running into two points also at the stalk, in the manner of an arrow head.

The flowers rise from the bosoms of the leaves: they stand on footstalks; and are large, and of a pale red, sometimes white.

The seed follows in a large capsule.

It is common by way-sides, and flowers in May, and during the rest of the summer.

C. Bauhine calls it *Convolvulus minor arvensis*. Others, *Convolvulus minor*.

This and the preceding both possess the same virtues: they are rough purges; and, to those constitutions that can bear such medicines, are good N^o 6.

in dropsies, and other disorders from obstructions of the viscera. The roots possess the principal virtue, and they are best fresh. The country method is to press out the juice, and give it with strong beer. The root of the *great bindweed* is what they commonly use on this occasion. It is singular, that hogs eat this root often in considerable quantity, without any manifest effect.

It may be useful in the country, where peoples constitutions are rough, and milder medicines are not to be had; but it is not worth bringing into the shops.

3. Narrow-leaved Bindweed.

Convolvulus pusillus angustifolius.

The root is long and slender, and has a few fibres.

The stalks are numerous, round, weak, and six inches long: they lie upon the ground, and their leaves grow principally on one side.

These stand singly at small distances, and are very narrow, and of a considerable length: they hoop round the footstalks, which are short and slender, in the manner of the head of an arrow, but the heads are more rounded; the edges are not at all indented, and they end in a sharp point.

The flowers have long, slender footstalks, and commonly stand opposite to the leaves, tho' not so numerous: they are small, and of a pale flesh colour.

The capsule of the seed is also small.

It is a native of our corn-fields, but not common. It flowers in June.

Plukenet calls it *Convolvulus angustifolius solis nostras cum auriculis*.

4. Little Bindweed, with a deep divided flower.

Convolvulus pusillus flore profunde scisso.

The root is long, slender, and brown.

The stalks are round, weak, numerous, and five or six inches long.

The leaves are numerous, short, broad, and of a pale green.

The flowers are small, of a faint red colour; and are composed of single petals as the others, but they are deeply divided into five parts.

The seeds are contained in short capsules.

It grows with us in barren places. Mr. Rand, who

who first found it in Kent, called it *Convolvulus flore minimo ad unguem fere scido*; and under this name it is placed in Dillenius's edition of the *Synopsis of British plants*.

5. Sea Bindweed.
Soldanella vulgaris.

The root is long, slender, and creeping.

The stalks are round, striated, weak, and usually of a purplish colour: they grow to a foot or more in length, and lean upon the ground.

The leaves stand irregularly: they have long footstalks, and are of a rounded figure, rather broader than long, and have a kind of ears at the stalk.

The flowers are large, and of a beautiful deep red: they have long footstalks, and rise singly from the bosoms of the leaves. The seed-vessel is short.

The stalk is tough, the leaves are of a fleshy thick substance, and the plant abounds with a milky juice.

It is common on our sea-coasts, and flowers in June.

C. Bauhine calls it *Soldanella maritima minor*. Others, *Soldanella vulgaris*.

We have no other species of *soldanella* a native of this country.

The roots and leaves of this species are a very violent purge: they are much more sharp in their operation than those of the common bindweed; but for constitutions that can bear them, they may be useful. There have been instances of great good done by this plant in dropsies.

Some upon the sea-coasts pickle the young tops in the manner of fampire; and even in this way they purge very briskly. In this form they are a popular remedy against the scurvy; whence the plant has obtained the name of *scurvygrass* among the common people; that name of right belonging to a quite different plant.

The best way of giving it is, to dry and powder the root; but even in this state it will work very violently. Its proper correctives are ginger and anniseeds; and, with right management, it may thus be made very serviceable in some stubborn complaints.

DIVISION II. FOREIGN SPECIES.

1. Syrian Scammony.

Convolvulus foliis sagittatis pedunculis bifloris.

The root is very long, large, and thick, and furnished with many fibres.

The stalks are numerous and weak, like those of our common great bindweed: they climb upon bushes in the same manner, and run to eight feet in length.

The leaves stand irregularly, and have long footstalks: they are large, oblong, and of the arrowhead shape; they are sharp at the point, and as it were cut off with a nick at the two ends behind the stalk.

The flowers are large, hollow, undivided, and of a beautiful purple: they stand two upon each footstalk; but only one of them blows at a time.

The seed-vessel is single, and roundish, the seeds large and black.

It is a native of Syria, and flowers in June.

J. Bauhine calls it *Scammonia Syriaca flore majore convolvuli*. Others, *Scammonia Syriaca*.

The drug known by the name of *scammony* at the druggists, is the hardened juice of the root of this plant: it is a strong cathartick. We have seen that the roots of most of the bindweeds are purging, and this possesses that quality in the strongest degree of all. The juice which we know by the name of *scammony*, though an excellent, is a rough medicine, and is never to be given without correctives.

2. Cretick Scammony.

Convolvulus radice longissima.

The root is slender, brown, and of a vast length.

The stalks are numerous, slender, weak, and three or four feet high.

The leaves stand in pairs; and are large, and

of a beautiful green: they have long, slender footstalks, and are heart-fashioned at the base, narrow in proportion to their length, and pointed at the ends.

The flowers are large, and of a beautiful purple: they stand singly at the tops of the branches, and are irregularly dented at the edges.

The seed-vessel is short and thick, and the seeds are black.

It is a native of the island of Crete, and flowers in July.

Alpinus calls it *Scammonia macrorrhizos*. Others, *Scammonia Cretica*.

The root abounds with a sharp juice, of the same nature with that of the Syrian *scammony*. It is prepared in the same manner, by drying, and used for the same purposes; but it is milder than the other.

3. Silver Bindweed.

Convolvulus althea foliis argenteus.

The root is long, slender, and spreading.

The stalks are numerous, and weak; they trail upon the ground, and are of a pale green colour, hairy, and tough.

The leaves stand irregularly. They have long footstalks, which are so weak that they often droop: they are of a beautiful shape and colour: they are oblong, heart-fashioned at the base, and pointed at the end; but toward the base they are also deeply indented or divided in the palmated manner; and they are notched all the way along the edges.

The flowers usually grow two on a footstalk, sometimes singly. Each has its own separate pedicle; and they are large, and of a beautiful red.

The seed-vessel is short and thick.

The whole plant is of a fine whitish silvery hue, and when broken does not afford a milky juice, as most bindweeds do.

It is a native of Italy, and flowers in June.

C. Bauhine calls it *Convolvulus argenteus folio albae*. J. Bauhine, *Convolvulus peregrinus pulcher folio Betonice*.

4. Little blue Bindweed.

Convolvulus caeruleus minor.

The root is long, slender, brown, and hung with many fibres.

The stalks are weak, round, hairy, of a pale green colour, and a foot high.

The leaves stand irregularly, and in a considerable number: they have no footstalks: they are of a pale green, long, narrow, and pointed at the ends: the edges are not at all dented, and they are but a little hairy.

The flowers stand singly on long, slender footstalks, rising from the bosoms of the leaves: they are large, and of a beautiful blue.

The seed-vessel is short and thick.

It is a native of Africa and of some of the warmer parts of Europe, and flowers in July.

C. Bauhine calls it *Convolvulus peregrinus caeruleus folio oblongo*. Others, *Convolvulus caeruleus minor*.

5. Small-leaved Bindweed.

Convolvulus ramosus folio parvo.

The root is small, fibrous, and brown.

The stalks are numerous, round, of a pale green, and tolerably firm: they divide into many branches; and frequently stand upright. They are six or eight inches high.

The leaves are small, oblong, and rounded at the ends. They sometimes stand in pairs, but oftener singly.

The branches rise from the bosoms of these, and are long, slender, and often divided into others. The leaves on these are very small and numerous; and they stand altogether irregularly.

The flowers are large, and of a bright red: they grow towards the tops of the branches, and have very short footstalks.

The seed-vessel is short and thick.

It is a native of Italy, and flowers in June.

Morison calls it *Convolvulus ramosus minor*. Pona, *Helsine cissampelos ramosa Cretica*; for it is also a native of that Island.

6. Many-leaved Bindweed.

Convolvulus foliis numerosis angustis.

The root is long, woody, brown, and furnished with many fibres. The leaves that rise from it are very narrow, longish, pointed at the ends, and of a pale green: they stand on long footstalks, and fade when the stalks rise.

These are numerous, slender, tough, of a pale green, six or seven inches long, and considerably branched.

The leaves are numerous, and stand thick: they are narrow, pale, undivided at the edges, pointed at the ends, and have scarce any footstalks.

The flowers are numerous, moderately large,

of a beautiful pale red; and they generally grow two together. They are divided at the rim into five, pointed segments.

The seed-vessel is small.

It is a native of Italy, and flowers in June.

C. Bauhine calls it *Convolvulus linariae folio*. Others, *Convolvulus spica foliis*.

7. Oak-leaved Bindweed.

Convolvulus quercus folio.

The root is slender, fibrous, and brown:

The first leaves rise in a thick tuft: they are of a deep green colour, of a fleshy substance, and stand on long footstalks: they have some rude resemblance of oak leaves in miniature, only they are less indented toward the point, and blunter at the ends.

The stalks are numerous, tough, round, redish, and two foot high: they stand more erect than most of the other bindweeds, but not perfectly so.

The leaves stand alternately: they resemble those at the root, but they are smaller, and not so fleshy.

The flowers grow singly from the bosoms of the leaves, and have long, slender footstalks: they are large, undivided at the edge, and of a dusky purplish colour.

The seed-vessel is large, and full of dark coloured seeds.

It is a native of the sea-coasts of Italy, but not common.

Imperatus calls it *Soldanella maritima congener*.

8. Cretick Bindweed, called Dorycnium.

Convolvulus multiflorus sericeus.

The root is long, thick, and has but few fibres.

The first leaves are long, narrow, undivided, and have no footstalks: they are of a silvery whiteness, and soft to the touch.

The stalks are numerous, round, firm, and woody: they do not lie upon the ground, as in most of the others, but stand erect.

The leaves on them are narrow, long, and blunt at the end, and have the same silky aspect with those from the root: they are numerous, and stand irregularly, with young tufts frequently in their bosoms.

The flowers stand at the tops of the stalks, six or eight together, and they are large, and of a beautiful red, though sometimes white.

The seed-vessel is short and thick.

It is a native of the Greek islands, and flowers in July.

Morison calls it *Convolvulus major rectus Creticus argenteus*. Others, *Dorycnium*, and *Cneorum*. C. Bauhine, *Cneorum album folio ole argenteo molli*.

Linnæus supposes this, and the last but one, varieties of the same species; but they are truly distinct.

9. Ivy-leaved Bindweed.

Convolvulus foliis trilobis.

The root is small, fibrous, and brown.

The first leaves are large, numerous, and form a thick tuft. They are placed on long footstalks,

and

and are formed as it were of three smaller joined together.

The stalks are numerous, slender, and branched. They are too weak to support themselves without help, but will climb to the height of ten feet.

The leaves stand irregularly, and are of the same form with those from the root: they have three points, or are formed of three parts, and are of a pale green.

The flowers stand on long footstalks, and are large, and of a beautiful blue; they are divided into five pointed segments at the edge.

The feed-vessel is large, and the seeds are blackish.

It is a native of the East, and flowers in July and August. The flowers open principally in an evening, and fade when the sun has power.

C. Bauhine calls it *Convolvulus ceruleus bederece anguloso folio*.

10. Feather-leaved Bindweed.

Convolvulus foliis pennatis.

The root is small, divided into two or three parts, and furnished with long, spreading fibres.

The first leaves are numerous, and extremely beautiful: they stand on long, purplish footstalks, and are large, of a fine deep green, and composed of ten or twelve pairs of long segments, extremely narrow, and placed nearly opposite to one another, with an odd one, usually forked, at the end; together with these, there

rise a couple of broad, plain, hard leaves from the seed, which remain a long time; and sometimes the stalk rises immediately between these, without any other radical leaves.

The stalks are slender, tough, and weak: they climb on any thing to the height of several feet: the leaves stand irregularly on them, and have long, tender footstalks: they in all things resemble those from the root, and are extremely beautiful.

The flowers are large, and of a very bright red: they grow in little clusters, and are divided into five segments at the edge: they have something of the aspect of the flowers of jessamy, and have thence given, among some writers, a name to the plant.

The seeds are contained in short capsules, one after every flower.

It is a native of the East Indies, and of some parts of South America.

Columna calls it *Convolvulus pennatus exoticus rarior*. C. Bauhine, *Jasminum millifolium folio*. Many call it *quamocho*, an Indian name. Linnaeus separates this and some others from the rest of the bindweeds, under the name of *Ipomaea*, but with so little foundation in nature, that when he has given the characters, he adds, "these plants are really species of *Convolvulus*." Why therefore did he permit the other nominal genus to remain? He has also separated these, under the name of *ipomaea*, in his *Species Plantarum*, his last published work.

GENUS III.

GENTIAN.

GENTIANA.

THE flower consists of a single petal, which is of a tubular shape, and divided into segments at the edge: it stands in a cup, formed of a single leaf divided into five parts: the seeds are contained in a single capsule, which is large, and lightly split at the top.

Linnaeus places this among his *pentandria digynia*, the threads in the flower being five; and the rudiment of the fruit, though single in itself, having two stigmata. If this author had regarded the body of the rudiment, rather than these lesser parts, it would have brought his method nearer to nature. This would then have been placed among the *monogynia*; the rudiment being really single, and giving the first notice of the single capsule succeeding each flower, to which the class owes its origin.

This author includes small centaury in this genus: but they differ sufficiently in many respects, though the flowers are nearly the same.

DIVISION I. BRITISH SPECIES.

1. Marsh-gentian.

Gentiana palustris angustifolia.

The root consists of several thick, long fibres, with other smaller ones growing to them. The large fibres are yellow, tough, and of a bitter taste; sometimes they grow to a small head, sometimes they are only joined at the top to one another.

The stalk is slender, firm, upright, but not altogether straight, frequently bowing from joint to joint.

The leaves are long, narrow, and of a dusky green: they grow two at a joint opposite to

one another, and have no footstalks: they are undivided at the edge, and sharp at the point.

The flowers stand at the tops of the stalks, and are very large and beautiful: they are long, hollow, irregularly divided into five segments at the edge, and of a very deep blue.

The feed-vessel is long and slender, and the seeds are small.

It is found in many parts of England on boggy ground, and flowers in August.

C. Bauhine calls it *Gentiana palustris angustifolia*. Others call it *Pneumonanthe*. We, in English, *Marsh-gentian*, or *Calatbian violet*. This last is an antiquated and improper name.

2. Woolly-

2. Woolly-flowered Gentian.

Gentiana flore lanuginosa.

The root is small, woody, and divided into several parts: it is of a brownish colour, and bitter taste: there are long fibres produced from it about the head, which creep under the surface, and spread every way.

The stalk is slender, round, striated, erect, and five or six inches high, sometimes more, sometimes much less; for the plant varies greatly in size.

The leaves are long and narrow, but not altogether so narrow as those of the preceding. They are of a fresh green, and stand in pairs without footstalks.

The flowers are large, and of a deep blue. They are divided into four segments at the edge, and there is a downyness of a purplish colour within.

The feed-vessel is long, slender, and pointed; and the seeds are very small.

It is found in barren, chalky soils, but not common. It flowers in September.

C. Bauhine calls it *Gentiana pratensis flore lanuginosa*. With us it does not grow in meadows, as that name seems to express. When this plant grows larger from a good soil, the leaves acquire more breadth, and in this form it is described by some authors as a different species, under the name of *Gentianella fugax autumnalis elatior centaurei minoris foliis*; but this is merely a variety from more nourishment.

3. Little Spring Gentian.

Gentianella pumila praecox.

The root is small, long, brown, and divided, and has a bitter taste.

The stalks are numerous, and of a brownish colour, rigid, firm, upright, but little branched, and from three to eight or ten inches in height, according to the degree of nourishment they find.

The leaves stand in pairs pretty near to one another: they are oblong, broad, pointed at the ends, of a dusky green colour, and have no footstalks.

The flowers stand at the tops of the stalks, sometimes singly, sometimes two or three together: they are large, and blue, and are divided into five segments at the edge.

The feed-vessel is thick, and oblong, and the seeds small and brown.

It is common in hilly pastures, and flowers in April.

This, like the former, varying in size, has been divided, from that accident alone, into several imaginary species.

Columna calls it *Gentianella purpurea minima*. Ray, *Gentianella fugax verna five praecox*.

These three are the only species of *gentian* we have native in Britain. They and the next to be described are called by many *gentianella*, from their smallness in comparison of the *gentian* used in medicine.

They are all good stomachicks, but inferior to that great kind. The country people make a very good bitter tincture from any of these, and orange peel steeped in white wine.

DIVISION II. FOREIGN SPECIES.

1. Great-flowered Gentian.

Gentiana latifolia magno flore.

The root is small, yellowish, divided into many parts, and furnished with fibres: it is of a bitter taste, and firm texture.

The leaves are broad and short: a tuft of them rise without footstalks from the root early in spring, and soon after, the stalks appear.

These are round, firm, brownish, and five or six inches high.

They have numerous leaves standing in pairs, of the same shape, colour, and substance with those from the root: they are nervous, and of a brownish green.

The flower stands at the tops of the stalk, and is very large, and of a beautiful sky blue; it is tubular, and divided into five segments at the edge, with white lines down their sides.

The feed-vessel is long, and large, and splits into two at the top. The seeds are small.

It is frequent in Germany, and flowers in April.

C. Bauhine calls it *Gentiana alpina verna major*. Others call it *Hippion*. We, *Great-flowered gentian*.

2. Great Gentian.

Gentiana major lutea.

The root is long and large, divided into several parts, and covered with a rough skin. It is brown on the outside, yellow within, of a firm substance, and very bitter taste.

The leaves that first rise from it are large, oblong, broadest in the middle, pointed at the ends, and without footstalks: they are of a deep green colour, and firm substance; and have five large ribs running lengthwise of them, and no others of any note. This is a particular mark, as it makes them resemble the leaves of plantain or white hellebore; the generality of plants having only one long and large rib in the leaf, and the others running obliquely from it.

The stalk rises in the midst of this tuft of leaves, and is round, thick, firm, upright, and three or four feet high.

The leaves are numerous, and stand in pairs in a line over one another; they are of the same shape and substance with those at the root, and having no footstalks, they surround the stalk at the base.

The flowers are very numerous, and yellow. They stand in great tufts surrounding the stalk, with a pair of leaves under every tuft: they are placed

placed in a small cup, and are divided into five long and narrow segments.

The feed-vessels are long, swelled at the bottom, and split a little at the top.

It is a native of Germany and other parts of the north of Europe; and flowers in July.

C. Bauhine calls it *Gentiana major lutea*. Camerarius and others, simply, *Gentiana*; and some, from the segments of the flower being spread like the rays of a star, *Asterias*.

This is the species whose root is the true and proper *gentian* kept by the druggists.

It is an excellent stomachick, and is the principal ingredient in bitter tinctures. It strengthens the stomach, promotes an appetite, and assists digestion. This root, orange-peel, and cardamom seed infused in wine or water, either way, make an excellent family bitter.

This is its common use; but besides this, it stands recommended against malignant fevers, and disorders rising from obstructions in the viscera: and it is also good against worms, and in intermittent fevers.

The best tincture of it is that in white wine.

3. Cross-leaved Gentian.

Gentiana foliis cruciatim dispositis.

The root is long, thick, and divided into several parts.

The first leaves are long and broad; they rise in large tufts, and have no footstalks.

The stalks are numerous, round, firm, upright, and eight inches high.

The leaves are placed in pairs without footstalks, and surround the stalk at their base: they are broad, nervous, of a deep green, and sharp-pointed; and the pairs usually are placed crosswise of one another.

The flowers stand in a thick cluster at the tops

of the stalks, and are small and blue: they are tubular, and divided into four short segments.

The feed-vessel is oblong, slender, and split at the top, and the seeds are small.

It is common in the northern parts of Europe, and flowers in July.

C. Bauhine calls it *Gentiana cruciata*. Camerarius, *Gentiana minor*.

The root has the same taste, and probably the same virtues, with the common *gentian*. It is greatly recommended in petulant fevers.

4. Great blue Gentian.

Gentiana major flore ceruleo.

The root is long, large, and divided into several parts.

The leaves that rise from it are long and broad: they have no footstalks: they are of a deep green colour, and firm substance, undivided at the edges, and sharp-pointed.

The stalks rise in the centre of this tuft, and are firm, upright, and two feet high.

The leaves are long and large; they resemble those from the root, but are of a paler green and of a softer substance: they have no footstalks, and they are ribbed lengthwise, like those of the great *gentian*: they stand in pairs, and enclose the stalk at the bottom.

The flowers grow from the bosoms of the leaves, from the middle to the top, and not unfrequently from the root up to the top, generally two upon each footstalk: they are large, and of a beautiful blue, tubular, and divided into five parts at the edge.

The feed-vessel is long and slender, and contains a great quantity of small seeds.

It is a native of Germany, and flowers in June.

C. Bauhine calls it *Gentiana asclepiadis folio*.

GENUS IV.

CENTAURY.

CENTAURIUM.

THE flower is small, and consists of a single petal, which is of a tubular form, and is divided into several segments at the edge. The feed-vessel is slender, oblong, and single. The stalks and leaves are tender.

Linnaeus places this among his *pentandria digynia*, making it a species of *gentian*, not allowing it to be a distinct genus. But, though it agrees with *gentian* in the structure of the flower, it differs sufficiently in its whole form and substance; the stalks of the *gentians* being hard and rigid, and their leaves tough and nervous; whereas those of the *centaury* are tender, as in the generality of other plants.

Many authors call this genus *centaurium minus*, *small centaury*, having given the name of great *centaury* to a plant altogether unlike it, and of a distinct class.

DIVISION I. BRITISH SPECIES.

1. Little Centaury.

Centaurium minus vulgare.

The root is small, long, divided into many parts, and furnished with numerous fibres.

The first leaves rise in a tuft: they are oblong,

broad, smooth, of a pale green colour, and have no footstalks.

The stalks rise among these, and are numerous, slender, upright, eight inches high, and of a yellowish colour.

The leaves stand in pairs on them, and have no

no footstalks: they are like those from the root, but shorter, of a fresher green, and more pointed: they are undivided at the edges, and tend upwards.

Toward the top the stalk divides into several branches, commonly, but not constantly, by two and two: these have smaller and narrower leaves on them, and at their tops tufts of flowers; and all joining, there is formed by the whole, a very large cluster.

The flowers are small, but of a bright and beautiful red: they are slender, hollow, and spread toward the rim, where they are divided into five segments.

The feed-vessel is simple, small and long, and the seeds are numerous and very minute.

It is common in dry pastures, and flowers in July.

C. Bauhine calls it *Centaurium minus*. J. Bauhine, *Centaurium minus flore purpureo et albo*; the flowers being sometimes white; but this is an uncommon variety.

It is an excellent stomachick: its taste is bitter, but not unpleasant, and it promotes an appetite, strengthens the stomach, and assists digestion. It may be called the *English gentian*.

It is excellent in obstructions of the viscera, in the jaundice, and against worms. The best way of giving it is in infusion, to which may be added lemon-peel and cardamoms.

2. Little yellow Marsh-centaury.

Centaurium palustre luteum minimum.

The root is long, slender, and divided into many parts.

The first leaves are short, and obtuse at the end: they have no footstalks, and they quickly grow yellow and fade.

The stalks are numerous, slender, and very much branched: they are four or five inches high, and full of leaves: these stand in pairs, and are small, obtuse, and undivided at the edges.

DIVISION II. FOREIGN SPECIES.

Alternate-leaved Centaury.

Centaurium foliis alternis.

This differs from all the others in an obvious and striking particular: their leaves grow in pairs; those of this species singly.

Its root is long, thick, yellowish, divided into several parts, and furnished with many fibres.

The leaves that rise from it are oblong, broad, even at the edges, sharp at the points, and have no footstalks: they rise in a little tuft, and are of a pale green; and they soon grow pale, and wither when the stalks rise.

The stalks are numerous, round, upright, very much branched, and of a pale yellowish colour: they divide generally in a forked manner, or, as botanists call it, dichotomously, but not universally.

The flowers stand at the tops of the stalks and branches, and are little, and of a dusky yellow.

The feed-vessels are long, slender, and full of very small seeds.

It is found on boggy grounds in some parts of England, but is not common. It flowers in June.

Ray calls it *Centaurium palustre luteum minimum nostras*. It has the same bitter taste with the other.

3. Perfoliate yellow Centaury.

Centaurium luteum perfoliatum.

The root is small, oblong, and divided into several parts.

The stalk is round, slender, upright, and a foot and half high; it is scarce at all branched, and of a pale yellowish green.

The leaves are very singular; they seem to be composed each of a pair of broad and short ones, perfectly jointed at their bases; so that they form one oblong, hollow leaf, of the shape of a boat, through the centre of which the main stalk passes. No plant is so perfectly perfoliate. These singular leaves are tender, of a deep green, and small, obtuse at the points, and not at all indented at the edges: they are smaller toward the lower part of the stalk, largest somewhat above the middle, and thence smaller again toward the top.

The flowers stand in a loose cluster at the top of the stalk, each on a slender pedicle: they are of a beautiful yellow: they have a tubular bottom, and are divided at the rim into eight segments, so deeply that at first sight they seem to consist of so many petals.

The feed-vessel is oblong and slender, and the seed small.

It grows in dry, barren, chalky places, but not very common. It varies extremely in size; whence some have divided it into a larger and smaller species. It flowers in July.

C. Bauhine calls it *Centaurium luteum perfoliatum*.

The leaves stand alternately, and are of a pale green: they are not very numerous, and they vary greatly in shape. Those toward the bottom of the stalk are like such as rise from the root; those higher up are longer and narrower; and there are tufts also of very small and narrow ones in their bosoms, and toward the tops of the branches.

The flowers are small, and white: they do not stand in clusters at the tops of the stalks, as in the other species, but all the way up in a kind of irregular spikes.

Its feed-vessels are small and cylindrical, and the seeds very small and numerous.

It is a native of France and Italy, and flowers in July.

C. Bauhine calls it *Centaurium minus spicatum album*. Others, *Centaurium minus album*.

G E N U S V.

LOOSE STRIFE.

LYSIMACHIA.

THE flower consists of a single petal, which is divided into five segments at the edge: the seeds are contained in a single capsule, which is round and large: the plant is erect and tall.

Linnaeus places this among the *pentandria monogynia*; there being five threads in the centre of the flower, and the rudiment of the capsule being single.

It is a genus extremely distinct, and plainly characterised. We have been accustomed to call this, and several other very different genera, by the common name of *willow herb*, the leaves of some of them resembling those of the willow. Those of this genus are much less like them than the leaves of some of the others; wherefore we have changed that name for another *loose strife*, by which it is also commonly known; retaining that of *willow herb*, for the other genus, which has more right to that appellation.

DIVISION I. BRITISH SPECIES.

1. Common yellow Loose Strife.

Lysimachia lutea vulgaris.

The roots are numerous, long, slender, and creeping.

The first leaves are large, oblong, broad, even at the edges, and pointed at the ends: they are of a beautiful green; they rise in a thick tuft, and have no footstalks.

The stalk is firm, upright, hard, and four feet high, and toward the top it sends out many branches.

The leaves grow two, three, or more, at a joint without footstalks: they are large, broadest at the middle, and jointed at the end, and of a beautiful green.

The flowers are very numerous, considerably large, and of a beautiful gold yellow: they seem composed of five petals, and have pointed buttons on the threads.

The seed-vessel is round and large.

This is so beautiful a plant in its erect stature, regular growth, and elegant flowers, that it is very worthy to be taken into our gardens. It is wild by water-sides not unfrequently, and flowers from May to August.

C. Bauhine calls it *Lysimachia lutea major*. Others, *Lysimachia lutea vulgaris*.

2. Globose Loose Strife.

Lysimachia flore globosa.

The root is long, slender, jointed, and furnished with abundance of fibres.

The first leaves rise only two or three together from different parts of the root: they are long, narrow, and of a deep green; and they have no

footstalks: they are undivided at the edges, and sharp at the point.

The stalk is firm, upright, not branched, and a foot and a half high.

The leaves stand in pairs: they are long, somewhat broad, undivided at the edges, and have no footstalks: they are smallest toward the bottom and top of the plant, and largest in the middle.

The flowers stand in roundish heads: these are supported by long, slender footstalks, and rise from the bosoms of the leaves, principally about the middle of the plant; they are small, and yellow.

The seed-vessel is single, roundish, and small.

It is found in wet places, but not common.

C. Bauhine calls it *Lysimachia bifolia flore luteo globosa*. Others, *Lysimachia lutea globosa*.

3. Hairy short-leaved Loose Strife.

Lysimachia foliis brevibus hirsutis.

The root is long, slender, creeping, and full of fibres.

The stalks are numerous, and three feet high: they are firm, upright, not much branched, and of a pale yellowish colour.

The leaves stand in an irregular manner as in the common kind, two, three, or four at a joint: they are short, blunt, of a pale green, and hairy.

The flowers are large, and of a beautiful yellow: they stand in clusters at the tops of the branches.

The seed-vessels are large and round.

It is not uncommon in damp pastures, and flowers in June.

Ray calls it *Lysimachia lutea foliis brevioribus obtusis floribus in summitate congestis*.

DIVISION II. FOREIGN SPECIES.

1. Red-flowered Loose Strife.

Lysimachia flore rubente.

The root is composed of many thick, long, and whitish fibres.

The first leaves are long, narrow, and of a bright green, and have no footstalks: they rise

in large tufts, but fade and disappear when the stalks come up.

The stalks are numerous, round, firm, erect, and two feet and a half high.

The leaves are long and narrow: they stand in pairs, and have no footstalks.

The flowers stand in long spikes at the tops of the

the stalks and their branches: they are large, and placed distinct; they consist each of a single petal, divided into five segments in the manner of the common yellow kind, and are of a beautiful red.

The seed-vessel is small and round.

It is a native of Italy, and flowers in July.

C. Bauhine calls it *Epbenerum Matthioli*.

2. Spotted yellow Loose Strife.

Lysimachia flava pedunculis unifloris.

The root is long, slender, jointed, and creeping.

The stalk is round, firm, upright, smooth, and two feet high.

The leaves are long and narrow; their broadest part is in the middle: they are sharp pointed, and undivided at the edges, and have no foot-

stalks. They stand irregularly; on some parts of the stalk singly, and on others four at a joint. Their colour is a deep green, and they are commonly spotted on the back.

The flowers are large, beautiful, and yellow: they stand on short footstalks rising from the bosoms of the leaves, one flower on each.

The seed-vessel is roundish, but somewhat oblong.

It is frequent in Flanders, and in some parts of Italy. It flowers in June.

C. Bauhine calls it *Lysimachia lutea minor foliis nigris punctis notatis*. Clusius, *Lysimachia lutea secundula*.

Loose strife has the credit of being an excellent vulnerary; but it is not regarded in the present practice.

G E N U S VI.

MONEYWORT.

NUMMULARIA.

THE flower consists of a single petal, and is divided into five segments: the seed-vessel is large and round, and the stalks are weak and trailing.

Linnaeus places this among his *pentandria monogynia*, the threads in each flower being five in number, and the rudiment of the capsule single. But he does not allow this a distinct genus; he makes it the same with *lysimachia*, and calls its species by that name.

We are averse to abolishing received and established names, because we would render the study of botany familiar, not load it with difficulties: therefore we have separated these plants, retained the name *nummularia*, and established it as a genus. It is true, that the flowers of this plant, and those of *lysimachia* are of a like structure; but all the species of *lysimachia* are erect and tall, and all those of *nummularia* weak, low, and trailing. This is an obvious, and, for all useful purposes, a sufficient distinction.

DIVISION I. BRITISH SPECIES.

1. Yellow Moneywort.

Nummularia flore flavo.

The root is long, slender, and furnished with many fibres.

The stalks are numerous, slender, round, weak, and trailing: they naturally lie upon the ground, and spread every way; and they are simple, and not branched.

The leaves are very beautiful in shape and disposition: they stand two at a joint, and grow flatwise, and the distances between them are small; so that as the plant lies spread on the ground, they make a very beautiful appearance: they are nearly round in shape, and of a fine fresh green colour. The plant had its name from their resembling pieces of money.

The flowers are large, and of a fine gold yellow: they stand on single footstalks rising from the bosoms of the leaves almost the whole length of the plant.

The seed-vessels are round and large.

It is common in meadows, and flowers in June.

C. Bauhine calls it *Nummularia major lutea*. Others, *Nummularia vulgaris*. We, *Moneywort*, and *Pennywort*, or *Herb twopence*.

N^o VII.

2. Purple Moneywort.

Nummularia flore purpurascente.

This is a small, but very pretty plant.

The root is long, and furnished with numerous tough fibres.

The stalks are numerous, slender, weak, crooked, and spreading: they lie upon the surface, or rise very little, and very irregularly from it.

The leaves are small, roundish, but a little pointed, of a fresh green, and placed in pairs on short footstalks.

The flowers are moderately large, and of a beautiful red: they stand singly on long and very slender footstalks rising from the bosoms of the leaves, and are divided into five segments, so deeply that they seem composed of so many petals.

The seed-vessel is small and oval; the seeds are numerous, and very small.

It is not uncommon in boggy places, and flowers in June.

C. Bauhine calls it *Nummularia minor flore purpurascente*. J. Bauhine, *Nummularia rubra*.

S

3. Money-

3. Moneywort with pointed leaves.

Nummularia foliis acutis.

Plate 9 Fig. 13
The root is long, slender, and furnished with many fibres.

The stalks are numerous, very slender, weak, and eight or ten inches long.

The leaves stand in pairs, and have no footstalks: they are broad and short, and resemble very much the leaves of the common kind in colour as well as disposition; but that instead of terminating

bluntly as in that, they here end in a sharp point.

The flowers stand singly on long, slender footstalks, which rise from the bosoms of the leaves, and they are of a beautiful yellow.

The seed-vessels are small and round.

It is frequent in woods, and flowers in July.

C. Bauhine calls it *Anagallis lutea nemorum*. J. Bauhine, *Anagallis lutea nummularie similis*. We, *Yellow wood pimpernell*; but J. Bauhine's name comes nearest to truth, for it is in reality a kind of moneywort.

DIVISION II. FOREIGN SPECIES.

1. Stellate-leaved Moneywort.

Nummularia foliis stellatis.

The root is small, slender, long, and full of fibres.

The stalks are numerous, weak, slender, and seven or eight inches long.

The leaves are broad, and short: they stand four together: they have short footstalks, and are sharp-pointed.

From the bosom of every leaf rises the pedicle of a flower, therefore there are four of them also at every joint: they are of a beautiful yellow, and are deeply divided into five segments.

The seed-vessel is small and oval.

It is a native of Virginia, principally about the coast; and flowers in July.

Petiver calls it *Anagallis marina lutea foliis latis stellatis*.

These several species, as they resemble the common moneywort in form, are of the same nature and qualities: it is a plant of very considerable virtues, which loose strife does not possess, at least not in an equal degree, and is therefore very necessarily separated and preserved under its proper and peculiar name.

The common moneywort is cooling and astringent; it is excellent against spitting of blood, and in dysenteries: for these purposes the best way of giving it is dried and powdered.

The juice of it is a known remedy for over-flowings of the menses, and the roots powdered are good in diarrhoeas.

GENUS VII.

ROUND PIMPERNELL.

SAMOLUS.

Plate 9 Fig. 14
THE flower consists of a single hollow petal, widening to the mouth, and divided into five obtuse segments: the seed-vessel is of an oval figure, and the cup remains with it.

Linnaeus places this among the *pentandria monogynia*; the threads being five in the centre of each flower, and the rudiment of the fruit single.

Of this genus there is but one known species.

Round-leaved Pimpernell.

Samolus.

The root is a thick tuft of long, slender fibres.

The leaves that rise from it are numerous, oblong, and without footstalks: they stand in a regular tuft, and are of a beautiful green. They are narrow, and lengthened in manner of a stalk toward the base, but at the top oval, undivided at the edges, and obtuse.

The stalk is round, firm, upright, and a foot high.

The leaves stand irregularly on it, and are of the same figure with those from the root, except

that they are not so lengthened at the base: they are broad, obtuse, and rounded at the end.

The flowers stand at the tops of the stalk and branches, and are small and white.

The seed-vessel is small, and the seeds numerous and minute.

It is not uncommon in wet places, and flowers in July.

C. Bauhine calls it *Anagallis aquatica folio rotundo non crenato*. J. Bauhine, *Samolus vallerandi*.

Its juice is an excellent antiscorbutick, taken with juice of Seville orange, and a moderate quantity of white wine.

GENUS

GENUS VIII.

PIMPERNELL.

ANAGALLIS.

THE flower consists of a single petal, divided so deeply into five segments, that there remains no tubular part, and the segments adhere to one another only at their bases: the cup is formed of a single leaf, divided into five hollowed segments: the seed-vessel is round, and the seeds are numerous and small.

Linnaeus places this among his *pentandria monogynia*; the threads being five in every flower, and the rudiment of the fruit single.

DIVISION I. BRITISH SPECIES:

1. Red Pimpernell.

Anagallis flore phæniceo.

Plate 9 Fig. 15
The root is long, slender, and furnished with many fibres.

The stalks are numerous, weak, and spreading: they are six or eight inches long, but lie scattered upon the ground, or rise but very imperfectly.

The leaves are short, broad, and of a fine bright green: they stand in pairs, and have no footstalks: they are broadest at the base, and narrower all the way to the point, and are undivided at the edges: they stand at moderate distances from pair to pair, and the plant has a regular and pretty aspect.

The flowers are small, but very conspicuous from their colour, which is a bright scarlet: they stand on long, pale-green footstalks rising from the bosoms of the leaves all the way up the stalk.

The seed-vessel is large, and the seeds are numerous.

It is common in corn-fields, and flowers in May.

C. Bauhine calls it *Anagallis flore phæniceo*. Others call it *Anagallis mas*. Our common people, *Pimpernell*.

2. Blue Pimpernell.

Anagallis ceruleo flore.

Plate 9 Fig. 16
The root is long, divided, and fibrous.

The stalks are numerous and firm: they do not lie scattered on the ground, as in the preceding species, but stand tolerably upright; and are little branched, and six inches high.

The leaves are long, narrow, and of a pale green: they grow two, or as often three, at a joint, and have no footstalks: they are broadest at the base, narrower all the way to the point, and not at all indented at the edges.

The flowers are large, and of a beautiful blue: they stand singly on long footstalks rising from the bosoms of the leaves, and are very numerous on the whole length of the stalks.

The seed-vessel is large, and the seeds are numerous and small.

We have it in our corn-fields, but not common. It flowers in June.

C. Bauhine calls it *Anagallis ceruleo flore*. Others, *Anagallis famina*, Female pimpernell.

There are two varieties of the common red pimpernell, which are treated by too many writers as distinct species: the one has white flowers, and the other three leaves at a joint, as the blue has, instead of two: this is the mere work of chance; the plants all rise from the same seeds, and are by no means to be considered as a distinct species.

Pimpernell is a celebrated cordial and sudorific; and the red-flowered, or common kind has most virtue.

An infusion of the fresh plant is excellent in slight feverish indispositions; never, or very rarely, failing to promote perspiration, and throw off the complaint.

The whole plant dried and powdered, is good against the epilepsy. There are well authenticated accounts of this terrible disease absolutely cured by it.

A decoction of it is much used in some places in the first stages of consumptions.

DIVISION II. FOREIGN SPECIES.

1. Jagged-leaved Pimpernell.

Anagallis foliis oblongis sinuatis.

The root is long and brown.

The leaves that first grow from it are long and narrow; and they lie spread in a round form upon the ground: they are of a dusky green, and deeply sinuated.

The stalks are round, firm, and upright; and their leaves resemble those of the root, but they are shorter, and more deeply indented.

The flowers are large, and of a deep red.

It is a native of Asia, and flowers in spring.

Petiver calls it *Anagallis purpurea burse pastoris foliis minoribus*.

2. Blue Pimpernell, with short leaves.

Anagallis cerulea foliis brevibus.

The root is long, slender, divided, and hung with fibres.

The stalks are numerous, and tolerably firm.

The

The leaves stand in pairs, and are of a cordated or heart-fashioned shape: they are of a deep green; they have no footstalks, and they surround the stalk at their base. The several pairs do not stand in the same line, but opposite; and sometimes, as in our common kind, there grow three leaves or more at a joint, instead of two.

The flowers stand on slender footstalks, and are of a beautiful blue.

The seed vessel is round, and the seeds are small.

It is a native of Spain, and flowers in August. Tournefort calls it *Anagallis Hispanica latifolia maximo flore*. Others, *Cruciata montana cœrulea*.

G E N U S IX.

P R I M R O S E.

P R I M U L A.

THE flower consists of a single petal in a long cup; the tube of the petal is of the length of the cup, and its edge is divided into five segments, which are obtuse, and dented in the middle: the seed-vessel is single and long; and the flower stands single upon a naked footstalk.

Linnaeus places this among his *pentandria monogynia*, the threads in the flower being five, and the rudiment of the fruit single: but he includes the cowslip and auricula under this name, making them all one genus.

This is not necessary nor convenient. The cowslip has its particular name and peculiar virtues, and it is sufficiently distinguished by having several flowers upon a stalk, whereas in the *primrose* there is but one; nor does the auricula want its marks of distinction from both.

DIVISION I. BRITISH SPECIES.

Common Primrose.

Primula vulgaris.

The root is a short, thick head, furnished with a great number of long and large fibres.

The leaves rise in a great tuft; and are large, oblong, and without footstalks: they are rough, of a deep, but pleasant green, and not dented at the edges.

The flowers rise among these on single footstalks: these are slender, naked, hairy, whitish, and each sustains one flower.

This is large, and white, or yellowish, deeply divided into five segments, which are broadest at the end, and indented there in a heart-fashioned manner.

The seed-vessel is longish, slender, and covered; and the seeds are numerous and roundish.

It is common in woods and thickets, and flowers in spring.

C. Bauhine calls it *Verbasculum sylvaticum majus singulari flore*.

The roots of the common *primrose* are used as a sternutatory against diseases of the head. The best way is to bruise them, and press out the juice, which is to be snuffed up. It occasions violent sneezing, and brings away a great deal of water, but without danger.

Dried and powdered, the roots are good in nervous disorders; but the dose must be small. It is reported to be a cure in the night-mare.

DIVISION II. FOREIGN SPECIES.

Purple Primrose.

Primula purpurea folio brevi.

The root consists of a small head, and a vast quantity of short fibres.

The leaves are numerous, and form a thick tuft: they are short and broad, irregularly and slightly sinuated at the edges, and pointed at the ends.

The stalk which supports the flower is three inches high, whitish, naked, and slender.

The flower stands at the top, single and large: it has a green husk, ribbed in five places, and

is itself divided into five segments; these are broad, and heart-fashioned at the ends: the colour is a beautiful purple, except in the centre, where there is a yellow star.

The seed-vessel is long, and the seeds are numerous and small.

It is a native of Turkey, and flowers in spring.

Cornutus calls it *Primula veris Constantinopolitana*. Others, *Primula purpurea*.

The Turks call it *Carchibec*: they give the roots dried and powdered in disorders of the stomach, and, as is said, with great success.

G E N U S X.

C O W S L I P.

P A R A L Y S I S.

THE flower consists of a single petal, tubular in the lower part, and at the edge divided into five segments, obtuse, and dented in the middle: the seed-vessel is single and oblong: several flowers stand upon one naked stalk.

Linnaeus

Linnaeus joins this and the preceding under one common genus, with the name *primula*; but the disposition of the flowers is a sufficient distinction.

1. Common Cowslip.

Paralytis vulgaris.

The root is composed of many fibres, connected to a small head.

The leaves are numerous and broad: they are of a dark green on the upper side, and whitish, and somewhat hairy on the under; rough on the surface, somewhat uneven at the edges, and obtusely pointed.

The stalks rise in the centre of these tufts: they are round, thick, firm, upright, pale-coloured, and a little hairy.

On the top of each stand ten or a dozen flowers; these are small and yellow: they stand in long, hollow, ribbed cups, and are succeeded by long, slender seed-vessels.

It is common in our pastures, and flowers in May.

C. Bauhine calls it *Verbasculum pratense odoratum*. Others, *Paralytis vulgaris*.

It is good against disorders of the nerves. The root has the principal virtue: the country-people boil this in ale, and give it in giddiness of the head with success.

The juice of it, mixed with vinegar, is also used to snuff up the nose, against headachs: it is less violent than the juice of the primrose root, but very well answers its purpose.

The flowers of the *cowslip* are of a gently narcotick quality: they are made into conserve and syrup for this purpose, and may be given where other medicines of the same quality would be dangerous: they mitigate pain, promote perspiration, and dispose gently to sleep. The juice of *cowslip* leaves and milk drank every day for a fortnight, and afterwards every other day for a month, is a remedy for inveterate headachs.

2. The Oxlip.

Paralytis flore majore.

The root consists of a large, oblong head, from which there run a vast many long and thick fibres.

The leaves are numerous, large, oblong, and rough: they are of a dusky green, and obtuse.

In the centre of these rises the stalk, which is thick, round, firm, upright, of a pale colour, and five inches high.

The flowers stand in a cluster at the top of this stalk, in the manner of *cowslip* flowers, but in every respect larger: they are from eight or ten to twenty in number: they have long and slender footstalks; and they are much broader, and of a paler colour, than the *cowslip* flower: they have very much the aspect of a parcel of small primroses fixed upon a *cowslip* stalk: their colour is a whitish yellow, and they have very little smell.

It is common in our pastures, flowering with the others.

C. Bauhine calls this species *Verbasculum sylvaticum* N° 7.

ticum vel pratense inodorum. J. Bauhine, *Primula veris caulifera pallido flore inodoro aut vix odore*.

We call it the Great *cowslip*, or *oxlip*.

Linnaeus makes the primrose, *cowslip*, and *oxlip*, all the same species of plant. He describes the *cowslip*, and introduces the two others under the name of varieties. Let the reader on this occasion properly understand what *varieties* are: they are those changes of appearance seen in the same species of plant under different states of nourishment, and other accidents. The old writers, when they saw a plant whose flower was naturally blue or red, with a white one, which is a common accident, called it another species: this was an error, for that is only a variety.

In the same manner, when a plant was starved and small, they often described it as another species: this also was erroneous: all changes in plants made by starving, and the more numerous ones by culture, are varieties; but no accident of this kind could make a *cowslip* root produce a primrose. I have had the *cowslip*, *oxlip*, and primrose, brought into a garden, where they continue year after year the same, and their seeds produce the same distinct kinds, and no other. These are the tests whereto we bring plants, in which there is a doubt whether there be distinct species or varieties called so, and they are conclusive.

The *oxlip* seeming an intermediate plant between the *cowslip* and primrose, naturally led Linnaeus into this error; but there are these gradations in nature every where, though not enough regarded. She travels always by regular and even steps: there are no gaps between.

The world is indebted to Linnaeus greatly for rejecting many imaginary species, which he has properly set down only as varieties; but in this, and some other instances, he has carried that point too far. So penetrating a genius is rarely united with a strict and chaste judgment.

3. Birds Eye.

Paralytis flore rubente.

The root is composed of numerous, thick, and long fibres.

The leaves rise in a little tuft, and are long and narrow: they are smooth, of a pale green, and sharply serrated at the edges.

They spread themselves every way on the ground, and have no footstalks.

The stalk is round and firm, upright, and four inches high.

On its top stand many flowers, as in the *cowslip*, but more erect, and in general more numerous: they are small, of a beautiful pale red; and each stands separately on a long, slender footstalk, all rising from the same point on the main stalk.

The seed-vessels are small and oblong, and the seeds numerous and very minute.

The flowers in this plant differ in more than colour from the *cowslip*; for the segments are not heart-fashioned or dented at the ends, but plain.

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It is not uncommon in the northern counties of England, and flowers in May.

As the *oxlip* connects the *cowslip* and *primrose*, this plant connects the *cowslip* and *auricula*.

C. Bauhine calls it *Verbasculum umbellatum alpinum minus*. J. Bauhine, *Primula veris minor purpurascens*.

The auricula would naturally follow here: but as there is no species of that plant native of England, we are obliged, by the method of our established divisions, to refer that to the second series of this class, comprehending the genera: of which there are none natives of Britain.

G E N U S XI.

BELLFLOWER.

CAMPANULA.

THE flower consists of a single petal, and is broad, deep, hollow, and divided into five segments at the edge: it stands in a cup formed of one leaf, divided into five segments; and is followed by a single capsule, which is of an oval figure, smooth, and divided into three cells.

Linnaeus places this among his *pentandria monogynia*, the threads in each flower being five, and the rudiment of the fruit single; but he confounds three genera under this name, including as species of it the *trachelium*, and *speculum Veneris*.

The species of *campanula* alone are sufficiently numerous; so that there is the greater impropriety in his encreasing them by the addition of those two other genera. These are both abundantly distinguished by nature; the seed-vessel being of a different form in each; and that in a manner so determinate, that it properly and fully may establish a generical mark. In the *campanula*, properly and distinctly so called, we have seen it is oval, and divided into three cells, and is smooth; in the *trachelium* it is, in the same manner, divided into three cells within; but it is rough or hairy on the outside: and in the *speculum Veneris* it is long, of a cornered shape, and divided into five cells. Mr. Ray, who keeps up this distinction, calls that genus to which the name of *campanula* is here appropriated, *rapunculus*.

Linnaeus separates some of these, placing them among his *syngenesia polygamia monogamia*, under the name of *lobelia*.

DIVISION I. BRITISH SPECIES.

1. Various-leaved Bellflower.

Campanula foliis variis.

The root is long, slender, and furnished with many fibres.

The leaves that rise immediately from it are altogether different from those on the stalk: they stand in a small tuft, and are supported on long, slender footstalks: they are of a roundish figure, but pointed.

The stalks are numerous, round, slender, and ten inches high.

The leaves stand irregularly on them, and are long, narrow, and without footstalks.

The flowers are very large and blue: they stand at the tops of the stalks, and on slender pedicles rising from the bosoms of the upper leaves: they are hollow, wide, open, and divided pretty deeply into five sharp pointed segments.

The seed-vessel is oval, small, and divided into three cells, in which are numerous little seeds.

It is common in dry hilly pastures, and flowers in June.

C. Bauhine calls it *Campanula minor rotundifolia vulgaris*. J. Bauhine, *Campanula parva anguillare*.

2. Little various-leaved Bellflower.

Campanula foliis variis minor.

The root is very slender, divided, and full of fibres.

The leaves that rise from it are numerous, small, and beautiful: they stand on short pedicles, and are nearly round: they have no point at the end, but are a little indented for the reception of the pedicle.

Among these rise several slender, round, weak stalks, five inches high, and scarce at all branched. The leaves on these are narrow, longish, and without footstalks.

The flower is large, and there usually is only one on the summit of each stalk: it is wider and shallower than that of the preceding species, and divided more slightly at the edge: its colour is a pale, but pretty blue.

The seed-vessel is oval, and the seed small.

It is common on the mountains in Wales, and has been met with in some parts of England.

C. Bauhine calls it *Campanula minor rotundifolia alpina*. The flower is sometimes of a snow white.

3. Wild Rampion.

Campanula foliis angustis obtusis.

The root is long, thick, and has few fibres.

The leaves that rise from it are numerous, oblong, of a bright green, undivided at the edges, obtuse at the points, and without footstalks.

The stalk is firm, upright, strait, striated, and two feet and a half high.

The leaves stand irregularly on it: they are long, narrow, and obtuse, and are very lightly ferrated.

Toward the top of the stalk there rise many little

little branches from the bosoms of the leaves, and on these stand the flowers.

They are large, blue, streaked with purple, and deeply divided into five segments.

The seed-vessel is oval and smooth, and the seeds are numerous and small.

It is wild in many places on the edges of corn-fields; but it is also kept in gardens for the sake of the root, which some people eat.

C. Bauhine calls it *Rapunculus esculentus*. J. Bauhine, *Rapunculus vulgaris campanulatus*.

The whole plant is full of a milky juice.

4. Ivy-leaved Bellflower.

Campanula cymbalariae foliis.

The root is small, thready, and divided.

The first leaves are small, tender, angulated, and of a beautiful green: they stand on long footstalks, and form a pretty tuft.

Among these rise numerous stalks, which spread upon the ground: they are three or four inches long, extremely tender, and usually of a redish colour.

The leaves stand irregularly on these, and resemble those from the root, but that they are smaller: they are angulated and broad; the corners and the point are sharp, and they are of a fresh and pleasant green.

The flowers are small, and of a pale blue: they stand on long and extremely slender footstalks; and are deep, and cut in at the edge into five segments.

The seed-vessel is small, oval, and smooth.

It is more frequent in Devonshire and Cornwall than in the rest of England, and flowers in May. It loves damp and shady places.

C. Bauhine calls it *Campanula cymbalariae foliis*. J. Bauhine, *Campanula folio bederaceo species Cantabrigiae anguillare*.

5. Horned Rampions.

Campanula corniculata montana.

The root is long, thick, white, and furnished with numerous fibres.

The leaves that first rise from it are short, and almost round, but pointed at the end, and some few of them at times oval, or somewhat oblong: they are placed on long footstalks, and ferrated at the edges.

The stalk is tender, striated, hollow, and a foot high.

The leaves stand irregularly on it, and are altogether unlike those from the root: they are long, narrow, and sharp-pointed, ferrated at the edges, and of a pale green; those toward the bottom have long footstalks, those toward the upper part have none.

The flowers stand at the top of the stalk in a round, thick head: they are small and purple; but are placed close together, and are distinguished by the length of the style that grows from the rudiment of the capsule; this turns in the manner of a horn; whence the plant has the name of *horned rampions*.

The seed-vessel is short and smooth.

It is a perennial plant, and not uncommon in the hilly pastures of Kent and Suffex. It flowers in August.

C. Bauhine calls it *Rapunculus folio oblongo spica orbiculari*. Others, *Rapunculus corniculatus montanus*, and *Rapunculus corniculatus orbicularis*.

6. Scabious-headed Rampion.

Rapunculus scabiosae capitulo.

The root is long, white, woody, divided into several parts, and furnished with many fibres.

The first leaves are numerous, narrow, ferrated, sharp-pointed, of a pale green, and without footstalks.

In the midst of these rise the stalks: they are numerous, slender, divided, and branched, and not perfectly erect; they are a foot or more in height.

The leaves stand irregularly on these, and are like those from the root, small, oblong, narrow, ferrated, hairy, and sharp pointed.

The flowers stand at the tops of the branches in round buttons: they are of a pale blue, and very numerous, horned in the manner of the former species, and have a kind of cup under the whole head.

Each flower is divided into five segments, and succeeded by a separate capsule, which is short and small, and full of minute seeds.

It is common in dry pastures, and flowers in July.

C. Bauhine calls it *Rapunculus scabiosae capitulo ceruleo*. Others, *Scabiosa minima bifurcata*.

DIVISION II. FOREIGN SPECIES.

1. Cretic Rampion.

Rapunculus foliis pinnatis.

The root is long, thick, white, and furnished with fibres.

The first leaves are simple, roundish, and undivided, and resemble those of the various leaved bellflower. After these rise others, which are pinnated; each composed of three pairs of smaller leaves set on a rib, with an odd one at the end, which is divided into three parts: these are of an oval figure, sharp at the points, and ferrated at the edges; and are of a pale, but pleasant green.

The stalk is round, erect, firm, and two foot or more in height: it has a few leaves on it of the same pinnated form, and toward the top a spike of flowers.

These are of a beautiful purple, and stand very thick; they are deeply divided into five narrow segments, and they quickly fade.

The seed-vessel is oval, and the seeds are small. It is a native of Crete, and flowers in May, after which the whole plant dies down to the root, which sends up new leaves in October, and these remain green all winter.

C. Bauhine calls it *Rapunculus Creticus seu pyramidalis*.

ramidialis altera. Others, *Petromarula*, and *Lactuca petraea*. The whole plant is full of a milky juice.

2. Yellow Bellflower.

Campanula lutea Linifolia.

The root is long, thick, and divided into several parts.

The first leaves are short, narrow, pointed, and without footstalks: they rise in thick tufts, and stand nearly upright, only with the points turning a little outwards.

The stalks rise from the centre of these tufts, and are round, slender, weak, and about seven inches high: they are not at all branched, and are scarce able to support themselves perfectly erect.

The leaves are numerous, and stand irregularly; they are longish, narrow, sharp-pointed, and without footstalks: they much resemble those of flax.

The flowers are extremely large, and very beautiful: they stand singly, one on each stalk most commonly, though sometimes there are more; and they are an inch long, of a very fine orange yellow, deep, and even at the edge.

The cup is divided into five parts, and remains with the seed-vessel, which is oval, smooth, large, and full of small seeds.

It is not uncommon in France and Italy, and flowers in June.

J. Bauhine calls it *Linifolia campanula lutea*. Lobel, *Campanula linifolia lutea montis lupi flore volubilis*. The flower is indeed very like some of the bindweed kinds, particularly the sea bindweed, but the genera are distinct, and this is true *campanula*.

Linnaeus separates this plant from among the *bellflowers*, and ranks it as a species of flax: he calls it *Linum campanulatum*. C. Bauhine, we have seen, calls it also by such a name; but Linnaeus should not follow his authority against nature: we shall see that it is against his own system also. Let us refer to his generic character of flax, *linum*, and we shall see that its flower, according to his own description, has five petals: how then can this plant be a species of that genus, when its flower consists of one, and that not so much as divided into segments at the rim? There are other particulars in which it differs from his generic character of *linum*; but this is sufficient: he owns he never saw it growing. It seems a plant intended by nature to connect the *convolvulus* and *campanula* kinds.

3. Peach-leaved Bellflower.

Campanula persicae foliis.

The root is long, thick, divided into several parts, and furnished with fibres in great abundance.

The first leaves rise in a tuft, and are long, narrow, undivided at the edges, and of a bright green.

The stalk is round, upright, firm, striated, and two feet and a half high.

The leaves are numerous, and stand irregularly upon it: they are long, narrow, undivided, of a beautiful green, and without footstalks: there

frequently rise tufts of young leaves in the bosoms of the old.

The flowers are very large and beautiful: they stand in a kind of irregular spike from the middle of the stalk to the top: they have long footstalks, and are of a beautiful blue, sometimes white: they are broad and shallow, and divided into five pointed segments at the edge.

The seed-vessel is large, oval, smooth, and divided into three cells within.

It is frequently wild in France and Germany. It flowers in June.

C. Bauhine calls it *Rapunculus persicae foliis magno flore*. J. Bauhine, *Campanula angustifolia caerulea et alba*.

4. Pyramidal Bellflower.

Campanula pyramidalis folio lato.

The root is long, thick, and divided into many parts.

The first leaves are few: they are short and broad, a little indented at the edges, pointed at the end, and placed on long footstalks.

The stalks are round, thick, firm, upright, and four foot high.

The leaves stand irregularly on them, and are like those from the root, but longer in proportion to their breadth, and more serrated: they are placed in the same manner on long footstalks, and are of a pleasant green.

The flowers stand from the middle to the top in a long spike of a pyramidal form: they are large, blue, and wide open at the mouth, where they are divided into five segments.

The seed-vessel is oval, smooth, and large.

It is a native of Spain, and flowers in July.

C. Bauhine calls it *Rapunculus bortenfis latiore folio seu pyramidalis*. Others, *Campanula latifolius pyramidalis*.

5. Lesser pyramidal Bellflower.

Campanula pyramidalis minor.

The root is large, long, thick, and divided.

The leaves that rise from it are very numerous: they stand on short footstalks, and are oblong, broad, sharply serrated at the edges, and sharp-pointed.

The stalk is round, erect, firm, and five feet high.

The leaves stand irregularly on it, and are of the shape of those from the root, but without footstalks.

The flowers are large, numerous, and of a pale blue, sometimes white, as in the other species: they are deeply divided into five segments; and they grow several together upon very long and slender footstalks, rising from the bosom of the leaves, as well as at the top of the main stalk: the pedicles which support them are so weak that they commonly droop.

The seed-vessel is small, oval, smooth, and divided into three cells, wherein is a great quantity of small seed.

It is a native of the warmer parts of Europe in damp places; and flowers in June.

Alpinus calls it *Campanula pyramidalis minor*.

6. Rock Rampion.

Campanula petraea foliis variis.

The root is long, thick, single, and has few fibres.

The first leaves stand on long, slender footstalks, and are of a cordated form, indented at the base, and sharp-pointed: they are undivided at the edges, and of a dusky green.

The stalks are numerous, six or eight inches high, round, smooth, and firm.

The leaves stand irregularly on these, and are altogether unlike those from the root: they are long, narrow, and sharp-pointed, not at all indented at the base, and undivided at the edges.

The flowers are small, and of a bright blue: they stand in small oval heads: one of these heads terminates each stalk, and consists of a vast multitude of flowers.

The seed-vessel is oval, small, and smooth.

It grows among rocks in Germany and Italy. Alpinus calls it *Rapunculus petraeus*, and others follow him exactly.

7. Serrated Rampion.

Campanula foliis angustis profunde serratis.

The root is long, thick, white, and undivided.

The leaves which first rise from it are short, somewhat broad, deeply serrated, and without footstalks.

There follow these another set of leaves, which are also without footstalks; but they are longer and narrower, and more deeply serrated.

In the centre of these rises the stalk, which is round, firm, upright, and two foot and a half high.

The leaves stand irregularly on it, and are like the second from the root, very narrow, long, and deeply serrated, and without footstalks.

The flowers stand at the top of the stalk, and on long footstalks rising from the bosoms of the upper leaves: they are large and blue, deeply divided into five segments, and open.

The seed-vessel is oval and small.

It is not uncommon in the woods of Germany, and flowers in June.

C. Bauhine calls it *Rapunculus nemorosus angustifolius major majore flore*.

8. Oval-leaved Bellflower.

Campanula foliis ovatis serratis.

The root is long, slender, and white.

The first leaves are roundish and serrated: they stand on long footstalks, and are not very numerous.

The stalk rises in the centre of the tuft, and is round, erect, and but little branched.

The leaves stand alternately on long footstalks, and are of an oval figure, pointed at the ends, and sharply serrated. Those toward the lower part are broader and shorter, those toward the

upper, narrower and longer; and just at the top there are a few of a different form, oblong, without footstalks, and not serrated.

The flowers are large, and of a pale blue: they stand on long and slender footstalks about the top of the plant, and are not very numerous.

The seed-vessel is oval and smooth.

It is frequent in the Harts forest.

C. Bauhine calls it *Campanula foliis subrotundis*. When it grows on barren ground the flowers are often white.

9. Broad-leaved clustered Bellflower.

Campanula latifolia floribus confertis.

The root is long, slender, white, and hung with many fibres.

The first leaves are oblong, broad, and placed on long, redish footstalks: they are not dented at the base, but are broadest there, and gradually narrower to the point; and they are a little hairy.

The stalk rises in the centre, and is round, slender, not at all branched, pale coloured, and somewhat hairy: it is about ten inches high.

The leaves stand irregularly on it: they are like those from the root, but narrower, sharp-pointed, not dented at the edges, but a little hairy: those on the lower part have short footstalks, the others none.

The flowers stand in a thick cluster at the top of the stalk: they are small, and of a beautiful blue, deep, and divided into five segments at the edge.

The seed-vessel is oval, smooth, and divided into three parts and full of small seed.

It is a native of France and most other parts of Europe.

C. Bauhine calls it *Rapunculus latifolius umbellatus*. In English it is commonly called *Umbellated rampion*.

Most of the species of *bellflower* are esculent plants, particularly the principal of the *rampions*. The roots of several of these are eaten in spring, in the manner of radishes, raw or boiled, and they are kept in some gardens for that purpose: they are tender, full of a milky juice, and well tasted. They are said to increase milk in the breasts of nurses, but that is an idle conceit, grounded only on the milky look of their own juice.

The common *various-leaved bellflower* is celebrated in some places as a cure for the scurvy: they take the juice in spring, with that of cleavers, water cress, and brooklime. When so many things of known virtue are used together it is not easy to say whether such an addition has much efficacy.

The root of any of the *rampion* kinds, if eaten in due quantity, operate by urine; and they are supposed to create an appetite. We do not use them much in England, but they are in great esteem in France and Italy. They cut them into thin slices, and eat them with oil and vinegar.

G E N U S XII.

THROATWORT.

TRACHELIUM.

THE flower consists of a single petal, hollow, and divided into five segments at the edge: the cup is formed of a single leaf, divided also into five segments; and the seed-vessel is rough and hairy on the outside, and is divided into three cells within.

Linnaeus places this among the *pentandria monogynia*; and, not regarding the difference of the seed vessel, makes it the same genus with *campanula*.

DIVISION I. BRITISH SPECIES.

1. Great Throatwort.

Trachelium foliis longioribus serratis.

The root is composed of a number of long, slender parts, which spread under the surface, and have many great fibres.

The first leaves are very large: they rise in a great tuft, and stand upon long footstalks: they are very large, oblong, broadest in the middle, sharply serrated, and pointed.

In the centre of this tuft rise the stalks, which are round, firm, thick, upright, not much branched, and four feet high.

The leaves on them are numerous, and of the same form with those from the root: they frequently grow two, three, or four from the same point, but without any great regularity.

The flowers are very numerous, large, and of a purplish colour, of different tincts and degrees; sometimes they are of a deep blue, sometimes redish, and sometimes white.

The seed-vessel is very large, hairy, and divided into three cells within; it has the same short footstalk which supported the flower, and generally hangs downward.

It grows not uncommonly on the mountains in Wales, and in Yorkshire and some other parts of England; and flowers in June.

C. Bauhine calls it *Campanula maxima foliis latissimis*. Others, *Trachelium giganteum*; and our English gardeners, *Giant throatwort*.

2. Nettle-leaved Throatwort.

Trachelium foliis urticae.

The root is long, thick, and spreading.

The first leaves exactly resemble those of the common stinging nettle; they are few, and of a dusky green, and hairy, broad at the base, sharp at the point, serrated, and supported on long footstalks.

The stalks are numerous, firm, upright, hairy, striated, purplish, and a yard high.

The leaves stand irregularly on them, and have long footstalks: they are of the same shape as those from the root, but smaller.

The flowers stand at the top of the stalks, and on short pedicels rising from the bosoms of the upper leaves: they are very large, and of a beautiful blue, deep, open, and cut into five segments at the edges.

The seed-vessel is large, rough, and divided into three cells.

It is common in Kent, Suffex, and many other countries, and flowers in August. Its common place of growth is by road sides.

C. Bauhine calls it *Campanula vulgarior foliis urticae major et asperior*. Others, *Trachelium majus*, or *Great throatwort*.

3. Cluster-flowered Throatwort.

Trachelium floribus glomeratis.

The root is long, large, spreading, and furnished with many fibres.

The first leaves are few and large: they are oblong, broad at the base, and smaller to the point; and they stand on short footstalks.

The stalks are numerous, round, firm, redish, erect, and two foot high.

The leaves stand irregularly on them, and resemble those from the root: those on the lower part have short footstalks, those on the upper part have none.

The flowers are large and blue; sometimes redish, and not unfrequently white: they stand in thick clusters at the tops of the stalks, and of the branches rising from the bosoms of the leaves.

The seed-vessels are large and rough.

It is not uncommon in dry pastures in many parts of England, especially where the soil is chalk. It flowers in July.

C. Bauhine calls it *Trachelium five campanula pratensis flore glomerato*. Others, *Trachelium minus*. We, in English, usually, *Little throatwort*.

The root of the great throatwort is astrigent. A decoction of it in water, and with a little red wine, is excellent against the falling down of the uvula, and is a very good gargarism in many disorders of the throat: it thence obtained its name.

Dried and powdered it acts as an astrigent in the bowels, and is good against diarrhoeas, especially such as are attended with bloody stools.

An infusion of the root of the nettle-leaved throatwort, sweetened with honey, is a good gargle for sore mouths. In general all the species have the same virtue: the great throatwort in the principal degree, and this nettle-leaved kind next.

DIVI-

DIVISION II. FOREIGN SPECIES.

1. Narrow-leaved Throatwort.

Trachelium foliis angustis.

The root is long, thick, and spreading.

The first leaves are very large: they are oblong, narrow, serrated, and often curled at the edges: they are of a dusky green colour, and have no footstalks.

The stalk is round, upright, firm, redish, and a little hairy.

The leaves stand irregularly on it, and resemble those from the root: they are of a pale green, and have no footstalks.

The flowers are very large and beautiful: their most natural colour is a fine deep blue, but they are sometimes redish or white: they are deep, long, and divided into five segments at the edge.

The seed-vessel is large and rough.

It is a native of Spain, and flowers in July.

C. Bauhine calls it *Campanula bortenfis folio et flore oblongo*. Others, *Viola mariana*; and our gardeners *Coventry bells*.

2. Rough-leaved Throatwort.

Trachelium foliis angustis serratis villosis.

The root is long, thick, white, and furnished with a few fibres.

The leaves that rise from it are numerous, oblong, narrow, of a brownish green, hairy, rough to the touch, sharply serrated, and without footstalks.

The stalk rises in the centre, and is round, firm, upright, and a foot high; it is rough to the touch, and often redish.

The leaves stand irregularly on it, and are not very numerous: they are narrow, and have no footstalks.

The flowers are large, of a beautiful blue, and hairy at the edge, and stand on the top of the stalk, and on long, slender footstalks rising from the bosoms of the upper leaves.

The seed-vessel is rough and oval.

It grows in Switzerland, and flowers in June.

C. Bauhine calls it *Campanula foliis echii floribus villosis*. Others, *Trachelium foliis echii*.

3. White Throatwort.

Trachelium album.

Several kinds of throatwort have the flowers accidentally white, but those of this plant are naturally so; the others are only varieties of the several species to which they belong, but this is altogether distinct.

The root is long, thick, divided into several parts, and of a redish brown.

The leaves rise in a round tuft: they are little, short, pointed, and somewhat hairy.

The stalks rise in the centre of these: they are numerous, upright, striated, and a foot and a half high.

The leaves stand irregularly on them, and are moderately large, oblong, undivided at the edge, and hairy.

The flowers stand at the tops of the stalks in thick tufts: they are white, moderately large, and deeply divided into three segments.

The seed-vessel is oval, rough, and divided into three cells.

It is a native of the mountainous parts of Switzerland, Germany, and Italy; and flowers in August.

C. Bauhine calls it *Campanula alpina sphaerocphalos*. J. Bauhine, *Trachelium majus petraeum*.

G E N U S XIV.

VENUS' LOOKING-GLASS.

SPECULUM VENERIS.

THE flower consists of a single petal divided into five segments at the edge. The seed-vessel is long, single, of a cornered shape, and is divided into three cells within.

Linnaeus places this among his *pentandria monogynia*; the threads of the flower being five, and the rudiment of the fruit single; but he joins it, as of the same genus, with the *campanula*, from which we see it manifestly differs in the form of the seed-vessel, as well as in its general aspect.

DIVISION I. BRITISH SPECIES.

1. Great Venus' Looking-glass.

Speculum Veneris major.

The root is small, long, woody, white, and furnished with many fibres.

The stalks are numerous, weak, very much branched, and about seven or eight inches high: they do not stand erect, but lean and bend.

The leaves are short and broad: they are of a deep green colour, placed irregularly, often, as it were in pairs in many parts, in others alternately and distant: they are sharply serrated at the edges, pointed at the ends, and broadest in the middle; and they have no footstalks.

The flowers stand on the tops of the stalks and branches: they are small, of a deep purple,

and divided into five segments; these, toward evening, close, and the flower has the look of a little arrow head of a pentagonal form: from this shape and its colour some have called this the *pentagonal violet*.

The seed-vessel is long, and has sharp edges: the seeds are numerous and small.

It is common in the corn-fields of the north of Ireland, but not in England. It flowers in July.

C. Bauhine calls it *Onobrychis arvensis* five *campanula arvensis erecta*. J. Bauhine, *Asicularia sylvii*.

2. Little Venus' Looking-glass.

Speculum Veneris minus.

The root is small, long, white, woody, and furnished with numerous fibres.

The stalk is hollow, tender, striated, and commonly three or four inches only in height, but in places where it is well nourished it will rise to a

foot; so that, although called the lesser species, it is in this case taller than the other, but it is scarce at all branched.

The leaves are little, and have no footstalks: they are short and broad, obtuse at the ends, and waved, or, as it were, curled at the edges.

The flowers stand at the top of the stalk, and on short footstalks rising from the bosoms of the leaves, one flower on each.

They are small, of a bright purple colour, and stand upon the rudiment of the pod or seed-vessel.

When they are fallen this swells and lengthens, and becomes a long capsule, resembling a pod, ridged, and sharp at the edges, and contains a great deal of minute seeds.

Ray calls it *Campanula arvensis erecta* vel *speculum Veneris minus*.

It is not uncommon in our corn-fields in Suffolk and some other counties; and flowers in June.

DIVISION II. FOREIGN SPECIES.

1. Great flowered Venus' Looking-glass.

Speculum Veneris magno flore.

The root is small, white, long, and woody. The stalks are numerous, weak, branched, and five or six inches high.

The leaves are numerous, oblong, and without footstalks: those toward the lower part of the stalk are longer and more obtuse; those toward the upper part, smaller and sharper at the point.

The flowers are very large, and of a beautiful pale purple, with a white eye in the centre, and some blue about it: they are divided into five segments, and are hollow.

The seed-vessel is long and angulated, and the seeds are large, shining and brown.

It is a native of Thrace, and flowers in June. Ray calls it *Speculum Veneris flore amplissimo Thracicum*.

2. Perfoliate Venus' Looking-glass.

Speculum Veneris perfoliatum.

The root is long, slender, fibrous, and white. The stalks are numerous, and tolerably erect:

they are round, thick, of a whitish colour, and a little hoary.

The leaves are broad and short: they stand irregularly, and surround the stalk at the base, so that it seems to grow through them.

The flowers are large, and of a pale but beautiful red: they are deeply divided into five segments, and they stand on the tops of the stalks, and on short pedicles rising from the bosoms of the leaves.

The seed-vessel is long, and angulated; and the seed moderately large, and of a glossy surface.

It is a native of Virginia, and flowers in June.

Morison calls it *Campanula pentagonia perfoliata*.

The *Venus looking-glass* agrees with the bell-flowers and rampions in its qualities.

The larger kind, which is very common in the corn-fields of France, is one of their favourite salad herbs. They gather the first leaves and eat them in the spring. The common fallading, known among them by the name of *queue de l'evêque*, is the first shoot of this plant: beside its agreeable taste, it is supposed to be a good antiscorbutic.

GENUS XIV.

L I N N Æ A.

THE flower consists of a single petal, hollow, open, divided into five segments at the edge, and resembling the campanula: the fruit is of an oval form, divided into two cells, and covered with its peculiar cup: it is in a manner of the berry kind, but not juicy.

The cup is double; there is one for the fruit just named, and another for the flower: the cup of the fruit is composed of four leaves, two of which are smaller, two larger: the cup of the flower consists of a single leaf, divided into five segments.

Gronovius established this genus, and named it in honour of Linnæus; but though the name and character be new, the rest is familiarly known. There is but one species of it; and that is the plant described by Bauhine, Gerard, Parkinson, and the rest, under the name of *thyme-leaved bellflower*.

Linnæus places the genus among his *dynamia angiospermia*; there being four threads in the flower, two of which are taller than the others, and the seeds being covered: there is one only in each fruit.

Linnæa.

Linnæa.

The root is long, slender, divided, and furnished with fibres.

The stalks are numerous, slender, round, and commonly reddish: they lie upon the ground, and take root at different places, thus spreading into large tufts.

The leaves are short, broad, serrated, and sharp-pointed: they stand in pairs, and have no footstalks.

The flowers are moderately large, of a pale

purple, and divided deeply into five segments: they stand on long, slender footstalks, which sometimes terminate the branches, and sometimes rise from the bosoms of the leaves.

The seed-vessel is oval, small, and smooth.

It is a native of Ireland; but is not found wild in England. It flowers in July.

C. Bauhine calls it *Campanula ferrugifolia*; a name that does not very well express the plant; but most other writers have copied it.

GENUS XV.

B U C K B E A N.

M E N Y A N T H E S.

THE flower consists of a single petal, divided into five segments, which are hairy: the fruit is a single capsule, of an oval figure, and undivided within: this stands surrounded with the cup, which is formed of a single leaf, divided into five segments, and hairy within: the leaves stand three on a stalk.

Linnæus places this among the *pentandria monogynia*, the threads in each flower being five, and the rudiment of the fruit single.

This author joins in this genus with the *buckbean*, properly called *menyanthes*, the *little water-lily*; but they are plants altogether differing in shape and qualities, though their flowers are alike. The disposition of the leaves, which is by threes in this plant, and singly in the other, is a sufficient and obvious mark of distinction.

Where nature happens to have given flowers of the same form to plants very different in form and qualities, we are not to confound the genera she has established, by joining them together under one name, but to seek in the rest of the plant those particulars which may keep them separate.

Of this genus there is but one known species, which is a common wild plant among us.

Common Buckbean.

Menyanthes vulgare.

The root is long, thick, jointed, reddish on the outside, white within, and runs obliquely under the surface.

The first leaves stand three on each footstalk; and these footstalks are thick, and reddish at the bottom.

The leaves are large, oblong, of a fresh green colour, and of a thick, fleshy substance: they are broadest in the middle, pointed at the end, and undivided at the edges.

The stalk is thick, round, ten inches high, and not at all branched: it is reddish at the bottom, and is there generally enveloped by the broad bottoms of footstalks of several leaves that rise with it, and surround it to some height.

These are like those from the root, but smaller; and there are no others on the stalk.

The flowers stand at the top in a thick, short spike; and are large, and very beautiful: their colour is whitish, but with a faint blush of red, and they are hairy or rough on the inside.

The seed-vessel is large and oval.

It is common in damp pastures, and on boggy grounds, and flowers in July.

C. Bauhine calls it *Trifolium palustre*. Tournefort, *Menyanthes palustre triphyllum*.

It is a plant deservedly celebrated for its virtues: it is diuretick and deobstruent in a great degree, and has a bitterness extremely serviceable to the stomach.

It is good in dropsies, the jaundice, the scurvy, the rheumatism, and in intermittent fevers.

For dropsies the best method of giving it is to express the juice after bruising the plant, with a little white wine.

In the scurvy, a strong infusion taken twice a day for a continuance, is of great effect: there are not wanting those who give it in the gout in the same manner.

For intermittent fevers, it should be dried carefully, and powdered; half a dram is a dose; and I have known it succeed where the bark has failed.

GENUS XVI.

FRINGED WATER LILLY.

NYMPHOIDES.

THE flower consists of a single petal, divided deeply into five segments, which are cut or fringed at the edges: the seed-vessel is large, and simple in its structure: the leaves stand singly, one on each footstalk.

Nº 8.

X

Linnæus,

Linnaeus, as we have seen, properly places this among his *pentandria monogynia*, the threads in each flower being five, and the rudiments of the fruit single; but improperly confounds it under the same generic name with buckbean, the general form and the virtues being different.

1. Yellow-fringed Water Lilly.

Nymphoides flava.

The root is a tuft of thick, black fibres.

From this, which is buried in the mud, rise many weak, trailing stalks, which take root again at certain distances, and spread the plant far and wide.

The leaves stand on long footstalks: these usually rise to the surface of the water, on which the leaves naturally float: they are of a fresh green, thick, and smooth.

The stalks are thick, soft, round, spongy, and jointed.

The flowers are large and yellow: they stand on thick footstalks, and are beautifully notched and jagged, in the manner of a fringe, about the edges.

The seed-vessel is long and large, and contains a great number of seeds.

It is not uncommon in shallow waters; we have it abundantly about Brentford. It flowers in July.

C. Bauhine calls it *Nymphæa lutea minor flore fimbriato*; a name most others have copied.

The leaves are cooling: their juice, mixed with honey, is good for sore mouths. The country-people give it also in overflowings of the menfes with wine. We see by this that it partakes of the qualities of the *common water lily*, and is by no means to be confounded with buckbean, whose virtues it has not, nor any qualities at all like them.

The common kinds of *water lily*, though they resemble this plant in their manner of growth, differ extremely in their flowers, and are to be treated of among plants that have several petals, not with these which have only one.

GENUS XVII.

WATER VIOLET.

HOTTONIA.

THE flower consists of a single petal, divided into five segments: the fruit is a single capsule, with only one cell, of a round shape, but terminating in a point, and is placed on the cup, which is formed of a single leaf, divided into five parts.

Linnaeus ranges this among his *pentandria monogynia*, the threads being five in each flower, and the rudiment of the fruit single.

Of this genus there is but one known species, and that is a common plant in our ditches and shallow ponds.

Water Violet.

Hottonia.

The root is a tuft of black, long, and slender fibres: these penetrate deep into the mud.

The leaves are long, large, and very beautifully pinnated: they consist each of ten, twelve, or more pairs of long and narrow segments, regularly disposed, and an odd one at the end.

From the base of this cluster of leaves there generally are propagated some long, slender stalks, which take root again as they run upon the surface of the mud, and in these places send up fresh clusters of leaves.

In the centre of these leaves rises the stalk,

which is to support the flowers: this is tall, upright, round, slender, and naked.

The flowers stand in little clusters at and near the top: they are moderately large, very pretty, and of a whitish colour, tinged with red.

The seed-vessel is single and small.

It is frequent in shallow waters that have muddy bottoms, and flowers in June.

C. Bauhine calls it *Millifolium aquaticum*, seu *Viola aquatica caude nuda*. Boerhaave, *Hottonia*; a name used now generally for it.

The leaves are cooling, externally applied; but they are more used by country people than by physicians.

GENUS XVIII.

SALTWORT.

GLAUX.

THE flower consists of a single petal, divided into five obtuse segments: the seed-vessel is a single capsule, having only one cell, and containing five seeds. There is no cup; wherefore some have called the flower a cup, and said the plant has no flower. This is a custom with many writers, when the flower remains with the fruit; but it is unnatural, and therefore improper.

Linnaeus places this among his *pentandria monogynia*; the threads being five in each flower, and the rudiment of the fruit single.

Of this genus there is but one known species, and that is a common wild plant about our sea-coasts.

Black

Black Saltwort.

Glaux maritima.

The root is composed of a cluster of slender fibres.

The stalks are numerous, and those which shoot first generally lie upon the ground, and take root again at little distances.

The succeeding stalks rise in the centre of these, and are round, slender, five or six inches high, and tolerably erect.

The leaves stand in pairs at small distances: they are oblong, small, and of an inverted oval figure; the part where they grow to the stalk being narrowest, and the leaf growing broader to the end.

The flowers are small and redish: they stand without footstalks, close in the bosoms of the leaves, and are very pretty.

The seed-vessel follows, and is large in proportion to the plant.

It is common on our salt-marshes, and elsewhere about the sea-coast, and flowers all summer.

C. Bauhine calls it *Glaux maritima*. Others, *Glaux exigua maritima*. We, *Saltwort*, and *Sea Milkwort*, from a notion of its encreasing the milk in the breasts of nurses.

This is all the virtue or use attributed to it; and this seems to stand upon a very precarious foundation.

GENUS XIX.

GREEK VALERIAN.

POLEMONIUM.

THE flower consists of a single petal, which is tubular in the lower part, and divided into five, broad segments at the rim: the fruit is a single capsule, of an oval form, with three rising edges, and it contains three cells: the cup is composed of a single leaf, divided into five segments.

Linnaeus places this among the *pentandria monogynia*; the threads in each flower being five, and the rudiment of the fruit single.

It would be well if this genus had a better name. Its English one, which is the translation of the vulgar Latin name, it received from the resemblance of the leaves in the common kind to those of some of the *valerians*; plants from which it is altogether different in character, and therefore ill confounded in name: the Latin one we give here, which is that used by the more accurate writers, sounds too like that of *poleymountain*; a plant from it as different, and with which it would be as erroneous in the student to confound it as with *valerian*.

DIVISION I. BRITISH SPECIES.

Common Greek Valerian.

Polemonium vulgare.

The root is composed of numerous, thick, and long fibres.

The leaves rise in a large tuft, and are extremely beautiful: they are of the pinnated kind, and each is composed of a great many pairs of pinnæ or smaller leaves, disposed with great regularity along a middle rib, with an odd one at the end: they are of a beautiful green.

The stalks rise in the centre of this tuft of leaves; and are green, hollow, thick, striated, upright, and two feet high.

The leaves stand alternately on them, and are like those of the root, pinnated in the same elegant manner, but smaller.

The flowers stand in large clusters at the tops of the stalks, and of small branches, rising from the bosoms of the leaves: they are large, and of a beautiful blue, sometimes white.

The seed-vessels are large and light, and the seeds numerous.

It is not uncommon wild in damp places in Yorkshire, and the other northern counties; and its beauty has brought it into frequent use in our gardens.

C. Bauhine calls it *Valeriana cœrulea*. J. Bauhine, *Valeriana Græca quibusdam colore cœruleo & albo*. Tournefort, *Polemonium vulgare cœruleum*.

Its virtues are not known.

DIVISION II. FOREIGN SPECIES.

Large-flowered Greek Valerian.

Polemonium flore magno.

The root is composed of numerous long fibres.

The first leaves are large, and of the pinnated kind; the pinnæ are oblong, and very numerous, and are terminated by an odd leaf.

The stalk is erect, striated, and firm.

The leaves are like those from the root, but smaller, and paler coloured: they are placed alternately, and at considerable distances.

The flowers are large, and of a bright red: they stand in a kind of thick clusters at the tops of the stalks and branches.

The seed-vessel is large, and has three ribs very plain and firm.

It is a native of Carolina.

Dillenius calls it *Quamoclit pinnatum erectum floribus in Thyrsum dispositis*; but it is properly a *polemonium*.

GENUS

G E N U S XX.

WOOD SORREL.

O X Y S.

THE flower consists of a single petal, very deeply divided into five segments; so that they adhere only at the base: the fruit is a single capsule, of a five-cornered shape, divided into five cells within, and contains numerous seeds, which leap out with violence when the capsule bursts open: the cup is very small; it is formed of a single leaf, divided into five segments, and remains with the seed-vessel.

Linnaeus places this among the *decandria pentagynia*; the threads in each flower being ten, and the styles rising from the rudiment of the capsule five. He calls it *oxalis*, a word many of the botanical writers have also used; but *oxys* is the more universally received: the alteration is trifling; and, while it can do no good, may breed confusion, the common *sorrel* being called by many writers by that name.

DIVISION I. BRITISH SPECIES.

Wood Sorrel.

Oxys vulgaris.

The root is slender, irregularly notched, and creeping, and has numerous fibres.

The leaves rise in many little clusters, and from their colour and manner of growing have a very beautiful appearance.

The footstalks are long, tender, weak, and redish; and they rise ten, twelve, or more, from the same head: at the top of each stand three leaves; these are of a heart-fashioned shape, the point being the end at which they join the stalk; from this they grow broader all the way, and are indented at the middle of the large end.

The flowers are moderately large, and white, with a blush of red: they stand on short and slender footstalks rising immediately from the root, and

seem composed each of five petals: the division is so deep, that these parts join only at the base.

The seed-vessel is longish; and, when the seeds are ripe, it bursts with violence on the least touch, or with the wind, and scatters the seeds.

It is common in woods, and flowers in March. This is the only species we have native of England; but when it grows in drier places, it is smaller, and flowers later. This has by some been described as a distinct species; but there is no more difference than what the common accidents of soil and situation give.

It is a pleasant, cooling, and useful plant. A conserve is made of it, which allays the burning heat of the mouth in fevers.

It is also good against obstructions of the viscera: to this purpose the juice should be taken.

DIVISION II. FOREIGN SPECIES.

1. Yellow Wood Sorrel.

Oxys lutea.

The root is long, slender, divided into several parts, and furnished with many fibres.

The first leaves are small, and stand on naked pedicles or footstalks, three on each, in the manner of the common wood sorrel, but smaller, and paler, and the stalk is shorter.

Among these rise numerous stalks: they are eight or ten inches long, round, tender, very much branched; and they lie upon the ground, taking root at the joints.

The leaves on these stand irregularly, and in all respects resemble those from the roots: they have long, slender footstalks, and three stand on each: these are narrow, and of a heart-fashioned shape, the point growing to the stalk, and the other end being deeply dented.

The flowers stand on short footstalks, two or more together, and are small and yellow.

The seed-vessel is long and edged.

It is common in damp and shady places in Italy, and flowers in May.

C. Bauhine calls it *Trifolium acetosum corniculatum*. Others, *Oxys lutea*, and *Oxys luteo flore*.

2. Upright American Wood Sorrel.

Oxys Americana erecta.

The root is long, slender, and divided into many parts.

The first leaves are numerous, and stand on long footstalks: they rise in a thick tuft, and on each footstalk there are three; they are broad, heart-fashioned, and of a pale green.

The stalk rises in the midst of these, and is hollow, striated, pale, and a foot and half high.

The leaves stand irregularly on this, and resemble those from the root: they have long footstalks, and grow three on each, and are heart-fashioned.

The flowers grow also on the tops of long, slender footstalks, many in a cluster: they are small, and of a pale yellow, and quickly fall off.

The seed-vessel is long, pointed, and edged, and the cup remains with it.

This is frequent in Virginia, and other parts of North America, and flowers in May.

Tournefort calls it *Oxys Americana erectior*.

3. Purple

3. Purple bulbous Wood Sorrel.

Oxys purpurea bulbosa.

The root is a little bulb, composed of several parts, in the manner of that of a lily, and has a tuft of tender fibres growing from its bottom.

The leaves stand three on a footstalk, as in the common kind, and are of the heart-fashioned shape: the footstalk is slender, weak, and redish.

The flowers stand several together on the top of a naked stalk: this is taller and more robust than the footstalks of the leaves, but not at all branched; nor are there any leaves on it.

The flowers are large, and of a beautiful purple.

The seed-vessel is long, edged, and angulated. It is a native of Virginia, and flowers in April.

Plukenet calls it *Oxys purpurea Virginiana radice lillii more nucleata*.

4. Small-leaved Wood Sorrel.

Oxys foliis minioribus ramosa.

The root is roundish, large, and made up of several heads, like the lilly-root.

The first leaves are small, and very numerous: they rise in a little cluster, without any visible footstalk; three stand together, and they are small, sharp-pointed, and yellowish.

In the centre of these rises the stalk, and they soon after wither; so that there does not remain the least mark there ever were any.

The stalk is upright, firm, branched, and four or five inches high.

The leaves stand thick upon it from top to bottom: they grow three together without any footstalk, and are short and pointed.

From the bosoms of the upper leaves rise small and slender footstalks of a considerable length; on each of which there is a single flower: this is large, and of a beautiful purple.

The seed-vessel is long, ridged, and pointed.

It is a native of Ethiopia, and flowers in May.

Burman calls it *Oxalis bulbosa foliis angustis ternis birtis flore purpureo*.

5. Great-flowered Wood Sorrel.

Oxys flore maximo.

The root is long and slender: it runs obliquely under the surface, and has frequent little bulbous heads growing to it, and numerous clusters of fibres.

The leaves are numerous, and not unlike those of our common wood sorrel: they stand three together on long, tender footstalks, and are heart-fashioned, and of a pale green.

Among these rise several tender, naked stalks, taller than those of many of the leaves; and on each of these stands a single flower.

This is of a pale purple, very large, and very beautiful; and consists, like the others, of a single petal, so deeply cut into five segments, that they seem absolutely distinct.

The seed-vessel is long and pointed.

It is a native of Ethiopia, and flowers in May.

Commelin calls it *Oxys bulbosa Ethiopica minor folio cordato*. Others, *Great-flowered oxys*.

The leaves of all these foreign kinds have the same four taste with those of the common *oxys*, some in a greater, some in a lesser degree; but not one of them excels our own. They probably have all the same virtues, differing only in proportion to the degree of acidity we perceive in their tastes.

G E N U S XXI.

MILKWORT.

POLYGALA.

THE flower consists of a single petal, divided to the bottom into four parts; so that it appears to be formed of so many distinct petals: the seed-vessel is a capsule of a compressed, heart-fashioned shape: the cup is composed of three leaves, two of which stand below, and the other three above the flower.

This is a perplexing plant to most of the system-makers. Its flower is very singular in form; therefore it has been called an irregular one, and most have supposed the segments so many distinct petals.

Linnaeus places it among his *diadelphia octandria*, the threads in the flower being eight; and collected into two clusters, as if they rose from two heads.

Ray has ranged it better than any: he found that the segments united at the bottom, and the flower truly consisted of a single petal, and that the seed-vessel was single; he therefore justly made it one of his *Herbae fructu sicco singulari flore monopetalo*.

DIVISION I. BRITISH SPECIES.

1. Blue-flowered Milkwort.

Polygala vulgaris.

The root is long, slender, divided into many parts, spreading, and furnished with numerous fibres.

N° 8.

The first leaves are numerous, broad, and short: they grow in little clusters upon the young shoots, and have no footstalks.

The stalks rise among these, and often those shoots themselves lengthen into stalks: they are numerous, weak, procumbent, and of a pale green.

green: they are extremely branched: and as they grow in length, the short first leaves drop off: they grow to eight or nine inches long; but far the greatest part of it lie upon the ground, few of them standing up farther than the spike of flowers.

The leaves stand irregularly on these stalks, and are unlike the first: these are longish, narrow, and pointed.

The flowers stand in long loose spikes, and are of a pale blue.

The seed-vessel is flat and large: the seeds are numerous, and small.

It is common in dry pastures, and flowers in July.

C. Bauhine calls it *Polygala vulgaris*. Others, *Polygala minor*.

No plant varies more than this in its aspect and manner of growth, according to the accidents of place and nourishment.

The flowers, though naturally blue, are often redish, and often white striated more or less with blue or red, sometimes white altogether. In this condition, some authors have described it as a different species, or made one or two more, all supposed different.

We have observed that the first leaves are small and short, and that these usually fall off; but sometimes there grow no others, these being continued upon the stalks their whole length: in this case the stalks generally lie altogether upon the ground, and the plant has been described as a distinct species under the name of *Polygala myrtifolia palustris humilis & ramotior*.

Mr. Ray himself is not without these slips: 'tis commonly on damp, poor ground it assumes this form.

In all these conditions the species is the same, and, under proper advantages of sun and nourishment, would at any time put on its proper face again. Some few years since, I saw a very remarkable instance of this. There grows a great deal of *milkwort* on the edge of a small bog on Hampstead heath: this, while the bog was wet, to the top, was full of short, broad leaves, and spread upon the ground in numerous branches: afterwards, some slight trenches were cut through the bog, which drained it a

little; and then the *milkwort* grew more erect, and had fewer branches, and long, narrow leaves.

These trenches are now filled up again in a great measure by the swelling of the boggy earth at their sides, as all trenches in such ground will, if not frequently cleaned; and that part of the *milkwort* which grows lowest is spreading on the ground, and getting into the myrtle-leaved state again.

Experience here shews strongly what we have occasion often to assert with equal truth, though less authenticated by evidence, that plants which appear very different, are only varieties of one and the same species. Few imagine what is in the power of accidents in the place of growth.

2. Upright red Milkwort.

Polygala purpurea erecta.

We have seen what changes the difference of soil make in the common *milkwort*; but we here treat of a species altogether distinct. No change of place, or accidents of any kind, could reduce this plant to the condition of the common *milkwort*, or raise that to the state of this: its own seeds produce it, and no other.

The root is long, slender, and divided into many parts.

The leaves on the first shoots are small, but not broad: they are numerous, short, and sharp-pointed.

The stalks are firm, rigid, erect, and ten inches high.

The leaves are numerous, and stand irregularly: they are narrow, of a deep green, sharp-pointed, and smooth.

The flowers stand upon the tops of the stalks in a short spike: they are large and purple.

The seed-vessel is flat, large, and full of minute seeds.

It is common in hilly pastures, and flowers in July.

C. Bauhine calls it *Polygala major*. J. Bauhine, *Polygala vulgaris major*.

I have never seen any variation in the colour of the flower in this species: it is always of the same strong uniform red.

DIVISION II. FOREIGN SPECIES.

1. Crested Milkwort.

Polygala cristata.

The root is long, slender, and simple.

The stalks are numerous, round, hard, and firm; part lie upon the ground, and part stand erect among them.

The leaves grow often in pairs, but not certainly or regularly so: they are small, short, obtuse, moderately broad, of a dead green, and very rough to the touch.

The flowers stand in long crested series on the tops of the stalks, sometimes in a single, sometimes a double series; and they are small, and purplish or white.

The seed-vessel is minute, and very flat, the seeds are very small and yellow.

It is a native of Æthiopia, and flowers in June.

Plukenet calls it *Polygala Æthiopica angustis hirsutis foliis flore obsolete purpureo*; but the flowers are oftener white than purple.

2. Feathered Milkwort.

Polygala cristis fimbriatis.

The root is woody, long, divided, and spreading.

The stem is woody, and divided into many branches.

The leaves stand irregularly, and are long, narrow, of a pale green, undivided at the edges, and pointed at the ends.

The flowers are large, and very beautiful: they stand in long spikes, and each has its separate long and slender footstalk; they are defended by a broad covering, composed of three leaves,

leaves, as the cup in the common kind is; and have at the top a double crest that has a feathered aspect: the colour of the flower is a lively purple.

It is a native of Æthiopia, and flowers in May.

Burman calls it *Polygala frutescens foliis linearibus flore majore purpureo*.

There are several species of *polygala* that are absolute shrubs and trees: these we shall treat of in their place: this approaches to them, and may serve as the last of the others, and to shew the gradation.

3. The Senneka Rattle-snake Plant.

Polygala radice marginata.

The root is long, slender, and divided into several parts: it spreads irregularly under the surface, and is of a brown colour: it is very singular in that there runs an edge or margin of a membranaceous substance on each side all the way along it.

The first shoots are numerous and full of leaves: these are short, narrow, and sharp-pointed.

The stalks are a foot high: they are round, weak, and of a pale green.

The leaves stand irregularly on them, and are

oblong, narrow, of a pale green, and pointed at the end.

The flowers stand in a long, loose spike, and are white or bluish.

The seed-vessel is flat, and the seeds are numerous, yellowish, and small.

It is a native of North America, and has been of late introduced into medicine, under the name of *radix senekka*, or the *rattle-snake root*.

The knowledge of its virtues was first owing to the Indians, who have recourse to it against venomous bites, that of the rattle-snake not excepted, from which it took its name.

It is excellent in pleuresies and quinzies, and all other disorders of that kind. It has had the fate of many good things, to be talked too high at first. Dr. Tennent, who introduced it here, recommended it with the warmth natural to the inventor of a new method of cure; and from his saying too much in its praise people came to suppose it deserved less than it really does. It is truly a great medicine, though now fallen into disuse.

The common *milkwort* is a purge. A handful of the leaves boiled in ale is a dose for a strong man: it works briskly, and without any ill effect.

The root dried and powdered is a sudorifick; ten grains is a dose.

G E N U S XXII.

DODDER.

CUSCUTA.

THE flower consists of a single petal, tubular at the base, and divided into four segments at the edge: the seed-vessel is a single, roundish capsule, containing two seeds: the cup is divided into four segments.

Linnaeus places this among his *tetrandria digynia*; there being four threads in every flower, and the rudiment of the capsule giving origin to two styles.

That author, in his *Genera Plantarum*, improperly joins the *basella* with this genus: the *basella* having, as himself acknowledges, a single seed after every flower, not contained in any capsule, but surrounded in the lower part by a succulent cup: neither do the other characters of *cuscuta* agree with this plant.

In his *Species Plantarum* he places them separate, making the *basella*, as it properly is, one of his *pentandria trigynia*; for in that genus the threads are only five, and the styles three. Of this Linnaeus was sensible, when he ranked it with *cuscuta*, whose threads are only four, and whose styles two.

We have given sufficient instances, that this method of classing plants is frivolous; here is a proof its author thought it so: why therefore did he endeavour to recommend to others what he had himself found insufficient?

We have observed that the seed of *basella* stands in a fleshy cup, otherwise uncovered. The reader will therefore see plainly why we do not add it to the genus of *cuscuta*: it is not so much as of this class, for it has no capsule.

DIVISION I. BRITISH SPECIES.

Common Dodder.

Cuscuta vulgaris.

This strange plant consists only of filaments, or long, tough threads, winding themselves about other herbs, and here and there ornamented with flowers: it has no leaves, and has been supposed to have no root; but better observation will shew that to be an error.

Its first appearance, though little regarded, is on the ground.

Its root consists of a few slender, long, and branched, redish fibres.

From these rise ten or twelve stalks, in form of small, red threads.

These rising in height, lay hold of some plant that is near them, and climb up on it: if there is none near, they pine, and the root dies with them; so the plant fading while small, is not at all regarded. When there is a plant in the way, which is usually the case, the young shoots rising from seeds dropped from the old herb as it hangs among

among the branches: these slender stalks grow quickly where they find themselves supported, and entangle among one another, and among the shoots of the plant, to which they have fastened themselves in a strange manner.

When they have got well established there the root dies, the stalks that rose from the ground wither, and the plant lives only among the branches of the other, taking its nourishment from them.

In this its full state of perfection, the threads are purple, and as thick as a small twine: and they soon after flower.

The flowers are produced in round clusters on one side of the stalks; and are of a pale purplish colour, little and fleshy. The seeds ripen in the same heads, and are large.

It is common in our fields and gardens, growing upon flax, nettles, heath, or any thing in its way, and often plaguing the gardener among his pot herbs: some have supposed the species of *dodder* differed according to the plant on which it grew, and have thence called it *epilinum* and

epurtica, and by a variety of other names of the same kind. Among these none is so famous as *epithymum*, that is the *dodder* which grows on garden thyme, from which it has been supposed to imitate peculiar virtues; but the *epithymum* or *dodder* of thyme is no way different from, nor any better than the *dodder* of the nettle when both grow in England: there is indeed a difference in that fold at the druggists from our common kind, but this is not owing to its having grown on thyme, but to its having grown in Crete, where the sun being warmer, raises it to more virtue.

C. Bauhine calls it *Cuscuta major*. Others, *Cuscuta*.

Dodder is a brisk purge, and is good in obstructions of the viscera, in the scurvy, and the sciatica. In a smaller dose it works by urine.

The best way of giving it is in infusion, an ounce of the *dodder* to a pint of water.

Outwardly the fresh herb bruised is excellent against stumous swellings.

DIVISION II. FOREIGN SPECIES.

Procumbent Dodder.

Cuscuta humilis.

The common *dodder* spreads itself only over plants, this frequently lies upon the ground; though it will also run to a vast height upwards when there are trees or bushes in the way to support it.

The root is a cluster of thick, very long and

spreading fibres, brown, tough, and ill-tasted.

The stalks are numerous, and grow to a vast length: they are purple, round, and very tough.

They have no leaves, but are ornamented with a vast quantity of flowers: these are of a pale purple, and stand on footstalks.

It is a native of the American islands.

Gronovius calls it *Cuscuta caule apophyllo volubili repente*. We, *American dodder*.

GENUS XXIII.

MUDWEED.

PLANTAGINELLA.

THE flower consists of a single petal divided deeply into five segments: the fruit is a capsule of an oval figure, half covered with the cup: it has only one cell, in which are numerous seeds: the cup is formed of a single leaf, and is divided at the rim into five segments: the leaves grow singly, one on each footstalk, as do also the flowers.

Linnæus places this among the *didynamia angiospermia*, because of the four threads that are in every flower two are longer and two shorter; and the seeds are inclosed in a capsule: he has changed its known name *plantaginella* into *limosella*. We are not fond of those diminutive names derived from those of other plants of different genera; but they are not needful to be changed without some farther reason.

Of this genus there is but one known species, and that is a native of Britain; a very singular, and very pretty plant.

Mudweed.

Plantaginella.

The root is a tuft of little, slender fibres.

From this rise together a number of trailing shoots for propagation.

These are procumbent: they run every way, and take root at little distances, sending up numerous tufts of leaves.

The leaves rise in clusters of ten or twelve together: each is supported on a long, slender footstalk; and they are of the shape of the great

water-plantain leaves, whence it had its name: they are of a pale green, broad, short, and approaching to oval.

The flowers stand on separate, and single footstalks, not half so high as those which bear the leaves; these are very small and white.

The seed-vessel is large and full of seeds.

It is common in the dry parts of shallow fishponds: about Hounslow it grows in almost every puddle. It flowers in July.

C. Bauhine calls it *Plantaginella palustris*. Plukenet, *Asine palustris repens foliis lanceolatis*.

GENUS

GENUS XXIV.

WINTERGREEN.

PYROLA.

THE flower consists of a single petal divided to the bottom into five or more segments; there is no tubular part, but these resembling so many distinct petals, join only at the bases: the fruit is a single capsule after every flower; this is roundish, depressed, and slightly marked with ridges: the cup is very small, it is divided into five segments, and remains with the capsule.

Linnæus places this among his *decandria monogynia*, the threads in the centre of the flower being ten, and the style rising from the rudiment of the fruit single; but he separates some of the species.

DIVISION I. BRITISH SPECIES.

1. Round-leaved Wintergreen.

Pyrola foliis rotundis.

The root is long, slender, and furnished with numerous fibres.

The leaves rise in a cluster, and are very singular and pretty: they have long, slender footstalks, and are of a roundish figure, somewhat approaching to oval, of a thick substance, and a fresh green colour: they are perfectly smooth, and divided at the edges: they in some degree resemble the leaves of the pear-tree, but are smaller, and hence the genus had its Latin name, this being the first known kind; and that name is continued to the others, though their leaves have nothing of that form.

In the centre of this tuft of leaves rises a single stalk: this is round, firm, upright, and ten inches high: it has no leaves on it, except a few narrow membranes be called by that name; and at its top sustains a spike of flowers.

These are large, white, and very beautiful: they have numerous threads in the centre, and a long point, which is the style, rises among them.

The seed-vessel is large, and the seeds are numerous and small.

It is not unfrequent in the woods of our northern counties, and flowers in August. We meet with it sometimes in those parts of boggy heaths which are deep covered with moss.

C. Bauhine calls it *Pyrola major*. Others, *Pyrola*.

Our name of *wintergreen* is given it from the fresh appearance of the leaves at the most dead seasons of the year, but it is a very indeterminate one, and has led to errors and confusion. The late lord Petre, desirous to have this plant, wrote into Yorkshire for its seeds, and received what were called such; they were nursed with great care, and produced *wintercress* *Barbarea*. Such judges are gardeners of the English plants!

This species is greatly recommended as a vulnerary. They use it in Germany in all their wound-drinks, and in many of their ointments and plaisters. With us the better knowledge of chirurgery has put these vulnerary plants much out of use.

2. Lesser Wintergreen.

Pyrola minor.

The root is small, long, and furnished with many fibres.

The leaves rise twenty or more together, and

N^o IX.

are placed on short and slender footstalks: they are broad, of a roundish figure, and notched lightly on the edges.

The stalk is upright, round, and eight inches high, and toward the top it divides into several branches.

The flowers are large and white, and they stand in clusters upon all the branches: they have a tuft of threads in the centre, as the other; but in that they lean, in this they stand upright, and the middle point or style is short, not long and prominent as in that species.

The seed-vessel is large, and the seeds are very numerous and very minute.

It is common in the northern parts of England, and flowers in July.

Rivinus calls it *Pyrola minor*. Others, *Pyrola* *Staminibus rectis*.

3. Tender Wintergreen.

Pyrola folio mucronato serrato.

The root is long, slender and creeping: it runs obliquely under the surface, and sends out at small distances tufts of fibres.

The first leaves, which rise in numerous clusters from different parts of the root, are oval: they stand on short, slender footstalks, and are of a deep green, and not at all serrated.

Among these rise the stalks: they are round, slender, weak, and but ill support themselves in their height, which is about a foot.

On the lower part of these there are some of those short, narrow, membranaceous leaves that are on the common *wintergreen* stalk; but besides these, there are numerous other large and proper leaves.

The flowers grow at the top, and are large and white: they stand only on one side of the stalk when the plant is but moderately nourished, but when the root spreads in a rich, free soil, they are more numerous, and stand on both sides.

It is a native of the north of England, but not common there.

C. Bauhine calls it *Pyrola folio mucronato serrato*. Clusius, *Pyrola secunda tenerior*; and his name is generally adopted by other writers.

4. Chickweed-flowered Wintergreen.

Pyrola alpine flore Europæa.

The root is composed of numerous threads connected to a small head.

The first leaves are few and small: they are

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short,

short, ferrated, sharp-pointed, and have no footstalks: they are of a yellowish green at first, and grow yellow and wither soon after the stalk appears.

The stalks are numerous, slender, striated, and tolerably upright.

On the lower part they have several of those small, short leaves mentioned in describing the other species; but their proper leaves stand only at the top of each stalk, and rise from one point.

These are broad, short, of a dusky green, ferrated, and sharp-pointed: there are six or eight of them on the top of every stalk, and they have no pedicles.

The flowers stand on very slender footstalks rising from the centre of the tuft of leaves; sometimes there is only one flower on each footstalk, sometimes there are two or more: they are small and white.

The seed-vessel is large, and has several ridges, and the seed is large and brown.

It is found in the north of England among moss and rushes in damp grounds; and flowers in August.

C. Bauhine calls it *Pyrola alpine flore Europea*. J. Bauhine, *Herba orientalis*. Schwenkfeldt, *Alpine alpina*, alpine chickweed.

5. Brazilian Wintergreen.

Pyrola alpine flore brasiliensis.

The root consists of a small head and a number of short, white fibres.

The first leaves rise in a little tuft, and are small, short, and without footstalks: they just form a defence for the tender shoot of the stalk, for which purpose they seem to be intended by nature; and when that is risen to a little height and strength, they decay.

The stalk is round, slender, not very upright, and of a pale green.

The leaves stand in a cluster at its top, rising all from one point: they are large, oblong, broad, sharp-pointed, not at all ferrated at the edges, and of a pale green.

The flower is small and white; often there is but one on the plant, sometimes more: each is supported by a long, slender footstalk, and is divided into five or more segments; for this division is irregular.

The seed-vessel is large and short.

It is a native of America, but has been met with in some parts of England. Mr. Lawfon is re-

corded to have found it near Gifbury in Cleveland; and I have seen it in the hands of one who told me he brought it from Snowden-hill.

C. Bauhine calls it *Pyrola alpine flore brasiliensis*. No plants have more perplexed the writers on botany than those of this genus; particularly these two last: but it has been because neither they nor any of the others have fallen fresh into the hands of such as could best have disposed them.

Mr. Ray separates the *pyrola* under two distinct classes, though he preserves the usual and received name *pyrola* to all of them: these two last alone he places in the present class of plants, that have the flower composed of a single petal, and a single capsule following it: the common wintergreen and the two kinds we have described after it he arranges among his class of pentapetalous flowers.

I am so unwilling to imagine he has been remiss in that strict examination which is necessary on these occasions, that I rather think nature may vary a little in these tender points: the difference between a plant whose flower consists of five separate petals and one where it consists of a single petal divided to the bottom, the segments uniting only at the tips of the base, is so little, that it may not strictly be observed in the course of nature, in which we see greater varieties. Certainly I have seen the flower of the common *pyrola*, where the petals uniting at their base were only the divisions of one: this I have observed repeatedly, and not alone; and this is evidently the case in the two latter species: wherefore I have brought them here together.

As to Linnaeus, he, though he regards not the continuity or division of the parts of a flower as any part of classical character, yet for other reasons separates the *pyrola* more widely: the three first species here treated of he keeps together under the common name *pyrola*, but the two latter he divides from those, and from one another, by separate classes; the European *pyrola* he describes in a distinct genus among his *heptandria*, calling its fruit a berry; though, as he allows it to have no juice, we shall be content to retain it here: the other he makes a species of *cornus*, the *dogberry*, placing it among the *tetrandria monogynia*, calling its fruit a drupe and not a capsule.

If a little liberty be to be taken in respect to the characters of plants, I think it should be, not to separate, but to keep those of the same general form together.

DIVISION II. FOREIGN SPECIES.

1. Single-flowered Wintergreen.

Pyrola uniflora.

The root is small, and creeps under the surface, sending up tufts of leaves in spring in many places, and stalks where they have first risen; but the leaves decay so soon that they are rarely seen together.

The stalks are round, slender, weak, and not at all branched.

The leaves grow regularly, but in a very singular manner: three rise from every joint, and they all grow toward its top.

They are small, roundish, a little ferrated, and

of a dark green: they have long footstalks, and there usually rise some young leaves in their bottoms.

From the upper cluster of these leaves rises a slender, upright, weak pedicle, on which stands the flower.

This is large, white, and single, and very much resembles that of the *parnassia*, being larger than the flower of any other *pyrola*: it consists of a single petal, so deeply divided into five segments that they appear five distinct petals, joined only at their bases.

The seed-vessel is large and ribbed: the seeds are small.

It is common in the woods of Sweden and some parts of Germany; and flowers in July.

Morison calls it *Pyrola singulari flore ampliore*. Linnaeus, *Pyrola scapo uniflora*.

2. Shrubby Wintergreen.

Pyrola fruticosa.

This is the most hardy of all the *Pyrola*.

Its root is long, slender, and woody, and runs under the surface, sending up tufts of leaves and stalks in many places: these, when they have risen to flowering, bend downward with the weight of the leaves, and, burying themselves in the deep moss among which they usually grow, remain, and become as it were shrubby, sending up young shoots another year.

The stalks are green, tender, and weak before they take this turn; afterwards they become harder, brown, and woody.

The leaves which rise first are oblong, broad, ferrated, of a brownish green, and without footstalks: they only appear, as the first shoot, and soon decay.

Those on the branches are of the same form, and they usually stand thick together: they are narrowest at the base, broader toward the end, and have no footstalks: they are of a pale green, and sharply ferrated.

The stalks terminate in long, naked pedicles, which divide into three or four lesser at the top, and on each of these stands a single flower: this is large, white, and composed of five segments, uniting at the base only; so that they seem five distinct petals.

The seed-vessel is large, short, and brown. It is a native of Germany and of many parts of Asia and America; and flowers in August. C. Bauhine calls it *Pyrola fruticans arbuti folio*. Clusius, *Pyrola tertia frutescens*.

3. Broad-leaved Wintergreen.

Pyrola folio latiore.

The root is long, slender, woody, brown, and spreading.

The first leaves are few and broad: they have short footstalks, and are not at all divided or ferrated at the edges.

The stalks are numerous, firm, and round, but slender.

The leaves grow usually three from the same part of the stalk, but this not uniformly or certainly: sometimes there are two, sometimes only one: they are large, broad, and not at all ferrated: they have short footstalks; and their colour is a pale green.

The flowers are large, beautiful, and white: they grow with the same uncertainty as the leaves, sometimes one, sometimes two, and sometimes three, on the same footstalk.

The seed-vessel is large, ribbed, and depressed. It is common in the woods of North America, and flowers in June.

Gronovius calls it *Pyrola petiolis apice bifloris vel trifloris*. Petiver, *Pyrola marilandica minor folio mucronato arbuti*.

The virtues of these have not been tried, but the taste shews them to be in general subastringent, as the common kind.

GENUS XXV.

MULLEIN.

VERBASCUM.

THE flower consists of a single petal, with a short tubular part at the bottom, and divided deeply into five segments, which are usually large and broad: the fruit is a single capsule following every flower; this is of a short, turbinate, or conic figure, and contains two cells: the cup is divided into five segments.

Linnaeus places this among his *pentandria monogynia*; the threads being five in each flower, and the style rising from the rudiment of the fruit single.

DIVISION I. BRITISH SPECIES:

1. White Mullein.

Verbascum album.

This plant is named white, not from its flowers, for they are yellow, but from the singular whiteness of its leaves.

The root is long, large, divided, and furnished with a vast many fibres.

The first leaves are very large, numerous, and white: they have no footstalks: they are a foot and half long, and half as much or nearly in breadth.

The stalk is firm, thick, upright, hard, and covered with leaves.

These are of the same shape and colour with those at the root, only they are smaller.

The flowers stand in a very long and thick spike at the top of the plant: they are not large, but are of a beautiful yellow.

The seed vessel is large and brown.

It is common by way sides, and flowers in July.

C. Bauhine calls it *Verbascum mas latifolium luteum*. Others, *Verbascum album*, and *Tapius barbatus*. We call it *White mullein*, *Cowslungwort*, and in some places *High taper*.

2. Hoary white Mullein.

Verbascum pulverulentum album.

The flowers of this are yellow, as well as those of the former, and it obtains its name in the same

same manner as that, from the whiteness of its leaves.

The root is long, thick, and furnished with many fibres.

The first leaves are long and large: they have short footstalks, and rise in a large tuft: they are undivided at the edge, sharp at the point, and very white; but they differ from those of the other in this, that their whiteness is owing to a hoary powder, which is easily wiped off.

The stalk rises in the centre, and is often eleven foot high.

The leaves stand irregularly on it, full as thickly as in the common mullein: they are like those from the root, but smaller, and have the same kind of hoary, or dusty matter on them.

The flowers are small and yellow: they stand in a thick spike at the top of the stalk, and they have the same sort of white dusty matter about them as is on the leaves.

The seed-vessels are large, and the seeds are very small.

It is frequent in the western counties of England, growing by road sides, as the common mullein.

C. Bauhine calls it *Verbascum mas foliis angustioribus floribus pallidis*. J. Bauhine, *Verbascum pulverulentum flore luteo parvo*.

3. White-flowered Mullein.

Verbascum flore albo.

The root is long, large, and edged with many fibres.

The first leaves are very numerous and very large: they are narrower than in the common mullein, and very long; and they are on the upper side smooth, and of a blackish green; but white and hoary underneath.

The stalk is tall, firm, upright, and five foot high.

The leaves stand thick upon it, and are of the same shape with those from the root, and in the same manner, of a dark green, and smooth on the upper surface, and white and dusty below: a few of the upper leaves are to be excepted, which are white all over.

DIVISION II. FOREIGN SPECIES.

1. Low Cretick Mullein.

Verbascum humile Creticum foliis laciniatis.

The root is long, thick, and furnished with many fibres.

The first leaves are large, and they rise in a thick tuft: they have long, hairy footstalks, and are irregularly pinnated: they consist each of two pairs of small pinnæ, and a very large, roundish leaf at the end.

The stalks rise among these; and are numerous, round, not very firm, and two feet high.

The leaves stand alternately on these; and are of the same shape with those from the root, but smaller: some of them have the two pair of pinnæ, as those of the root, and others only one pair, and the odd leaf.

The stalk divides into several branches toward

The flowers stand on long branches, into which the stalk divides at the top; so that there are usually many spikes in this, as there is commonly but one in the other mullein: they are small and white.

The seed vessel is large, and the seeds are very small.

It is common by the road-sides and in dry pastures in many parts of Kent; and flowers in August.

C. Bauhine calls it *Verbascum hyemalis flore albo parvo*. J. Bauhine, *Verbascum flore albo parvo*. Others, *Verbascum hyemalis*. Linnæus considers this as a variety of the former species, but it is really a distinct plant: if the colour of the flowers were the only difference it would be reasonable to join them, but the leaves and the whole herb differ.

4. Black Mullein.

Verbascum nigrum.

The root is long, thick, and edged with many fibres.

The first leaves are large and broad: they have short, purplish footstalks, and are somewhat of the shape of the leaves of sage, but vastly bigger: their colour is a blackish green: they are sharply serrated, and they have an ill smell.

The stalks are round, thick, often redish, upright, and four or five feet high.

The leaves stand thick upon these, and resemble those which first rise from the root, but that they are smaller.

Toward the top the stalk sends out many branches, and these are all terminated by spikes of flowers, which are moderately large, of a beautiful gold yellow, and ornamented by purple buttons in the centre.

The seed-vessel is large, smooth, and full of small, brown seeds.

It is frequent in Hertfordshire and many other counties by way sides; and flowers in July.

C. Bauhine calls it *Verbascum nigrum flore ex luteo purpurascens*. Lobel, *Verbascum nigrum salvifolium*.

the top, and on these stand the flowers in long spikes: they are large and yellow.

The seed-vessel is large, and the seeds are small.

It is a native of Crete, and flowers from June to September.

C. Bauhine calls it *Verbascum humile Creticum laciniatum*. Columna, *Verbascum brassice folio*. Others make it a *blattaria*, but improperly. This is the species that some authors have called *arctus*, *arctos*, and *arcturus*.

2. Poppy-leaved Mullein.

Verbascum nigrum foliis papaveris.

The root is long, large, woody, and furnished with numerous fibres.

The first leaves are long, large, and hoary: they

they are deeply sinuated at the edges, in the manner of many of the poppy kinds, and are pointed at the ends.

The stalks are numerous, of a woody hardness, round, irregular in their growth, and spreading.

The leaves stand at distances on them, and are altogether unlike those from the root: they are simple, of a cordated figure, and very white: they surround the stalk at the base, and terminate in an obtuse point.

The flowers are large, and of a beautiful yellow.

The seed-vessels are large and the seeds small.

There is something in the disposition of the flowers in this species different from most of the others: they stand in a long, slender, and interrupted spike.

It is frequent in Italy, and flowers in July.

C. Bauhine calls it *Verbascum nigrum foliis papaveris corniculati*. J. Bauhine, *Verbascum crispum et laciniatum*.

GENUS XXVI.

MOTH MULLEIN.

BLATTARIA.

THE flower consists of a single petal, divided into five segments: the seed-vessel is round, and the cup is divided into five sharp segments.

Linnæus places this among the *pentandria monogynia*, but he does not allow it to be a distinct genus: he takes away its ancient name, and makes it a species of *verbascum*. The English writers were sensible that it was nearly allied to mullein or *verbascum*, as appears by their naming it *moth mullein*; but it differs evidently in the figure of the seed-vessel, which is round in this, and not in mullein.

The species of each of these genera are numerous; so that there is confusion in joining them: too many of the botanical writers have confounded them already, calling several proper species of *verbascum*, *blattaria*, and those of *blattaria*, *verbascum*: the essential distinction of the two genera being thus established by the form of the capsule, I shall here separate them, according to that character.

DIVISION I. BRITISH SPECIES.

Moth Mullein

Blattaria vulgaris.

The root is long, large, divided into several parts, and hung with a multitude of fibres.

The first leaves are long, arrow, and of a shining green: they rise without footstalks, and spread circularly upon the ground.

The stalk rises in the centre, and is round, firm, thick, upright, and two or three feet high.

The leaves stand irregularly on it: they are small, and of the same shape and colour with

those from the root: they grow to the stalk by a broad base, and are sharply serrated.

The flowers are very large and beautiful: they are of a gold yellow, and have purple buttons to the numerous threads in their centre.

The seed-vessel is large, and the seeds are small.

It is a wild plant with us, but not common. I have observed it near Denham in Buckinghamshire. It flowers in August.

C. Bauhine calls it *Blattaria lutea folio longo laciniato*.

DIVISION II. FOREIGN SPECIES.

1. Purple Moth Mullein.

Blattaria purpurea.

The root is long and thick divided, and hung with fibres.

The first leaves are large, meroous, and of an oval figure: they have scar any footstalks, and spread upon the ground.

The stalks are numerous, rod, thick, firm, upright, and a foot and half high.

Nº 9.

The leaves stand irregularly on them, and are short, broad, of a dark green colour, and oval: they have no footstalks, and sometimes they are a little dented, sometimes quite undivided at the edges.

The flowers stand in long spikes, and they are large, and purple: their colour varies from the deepest violet to the plainest red; and from this, which is altogether accidental, some have divided it into many distinct species.

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The seed-vessel is large and round, and the seeds are small.

C. Bauhine calls it *Blattaria purpurea*. J. Bauhine, *Blattaria flore ceruleo sive purpureo*.

2. Red Moth Mullein.

Blattaria flore rubente foliis serratis.

The root is long, large, and furnished with many fibres.

The first leaves are numerous, large, and serrated: they are long, moderately broad, and have no footstalks.

The stalk is round, thick, upright, firm, and three feet high.

The leaves stand irregularly on it, and are like those from the root, long, large, deeply serrated, and sharp-pointed: they have no footstalks, and they generally hang downward.

The flowers stand at the top of the stalk in a very long and thick spike, with some long, narrow leaves intermixed among them: they are large, and of a beautiful mixed red, not a bright, gaudy colour, but an extremely pleasing tinct: when nearly examined there is a mixture of blue and of orange, but the red is the predominant colour.

The seed-vessels are large and round.

It is a native of France, and flowers in Autumn.

Morison calls it *Blattaria perennis flore obsoliti coloris*; and others have in general copied the same name.

3. Jagged Moth Mullein.

Blattaria foliis dissectis.

The root is long, slender, and furnished with many fibres.

The first leaves are numerous and small: they rise in a tuft, and spread on the ground like the rays of a star: they have no footstalks, and they are long, white, hoary, and deeply divided.

The stalks are numerous, round, slender, and about ten inches high.

The leaves stand thick upon them, and are hoary, white, and cut down to the middle rib in several places; so that they have a pinnated aspect.

The flowers are small, and the seed-vessels also small, but round.

It is a native of Italy, and flowers in June.

Boccone calls it *Blattaria imana multifida*. Others copy the same name.

The root of the *common moth mullein* is astringent, but in an inferior degree to that of the *common white mullein*. We have no account, from any authentic hand, of the virtues of the other species; but some of them have an acrid taste, and seem of different qualities. They are accounted among the number of vulnary plants in Germany; but almost every thing growing has in some places that character.

G E N U S XXVI.

SPEEDWELL.

VERONICA.

THE flower consists of a single petal, which is tubular in the lower part, and divided into four segments at the edge: the fruit is a single capsule, of a turbinate and heartfashioned shape, compressed at the top, and containing two cells: the cup is divided into four parts, and remains with the fruit.

Linnaeus places this among his *dyandria monogynia*; the threads in the centre of the flower being two, and the style from the rudiment of the capsule single.

DIVISION I. BRITISH SPECIES.

1. Little smooth Speedwell.

Veronica glabra parva.

The root is composed of numerous, slender, long fibres.

The stalks are weak, round, smooth, and numerous: they lie in part upon the ground, and in part raise themselves up: they take root frequently where they trail upon the ground, and thence send up shoots that thicken the tuft: the part of the stalk that is erect is four or five inches high.

The leaves stand in pairs: they are little, of an oval figure, and of a pale but pretty green, perfectly smooth, and undivided at the edges.

The flowers are small, and of a faint bluish white: they stand on short footstalks rising from the bosoms of the leaves, and run up at the top

of the stalks in a kind of loose, irregular spike.

The seed-vessels small and flat.

It is a native of every part of Europe, and in no country so frequent as in England; we have it every where by waysides and in pastures. It flowers in May.

C. Bauhine calls it *Veronica pratensis serpyllifolia*. Others, *Veronica pratensis minor*, and *Betonica Pauli serpyllifolia*. In English it is called *Smooth speedwell*, *smooth fluellin*, and *Paul's betony*.

There may be confusion from the name of *fluellin*, because it is the received English name of a very different plant, to be described in its place hereafter.

2. Little,

2. Little, hairy Speedwell.

Veronica mas supina et vulgarissima.

This is a small *speedwell*, as common in our pastures as the other, and like it, often called by the common but improper name of *fluellin*: this confounds it with another genus, from which it is very distinct; as does also the common way of speaking, with the former, but they differ widely.

The root of this is composed of a multitude of slender fibres, joined to a small head.

The stalks that first shoot from it trail upon the ground, and take root at their lower side, by which means the plant presently spreads into a large tuft.

From these procumbent shoots rise the stalks which bear the flowers, as do also some from the root.

They are slender, weak, round, and of a pale green, five inches long, and, usually, in part erect, and in part leaning.

The leaves grow in pairs: they are oblong, broad, deeply serrated, and sharp-pointed: they have short footstalks, and they are of a pale green, and slightly hairy.

The flowers stand in long, slender spikes at the tops of the branches, and are of a beautiful blue, small but very conspicuous.

Under these spikes there frequently grow some narrow leaves, unlike those on the rest of the stalk.

The seed-vessel is flattened and heartfashioned, and the seeds are numerous and small.

This is very common in dry pastures, and flowers in June.

C. Bauhine calls it *Veronica mas supina et vulgarissima*. J. Bauhine, *Veronica vulgarior folio rotundiore*.

We call it *Common speedwell*, *male speedwell*, and *male fluellin*. If we would call it *little, hairy speedwell*, there would be no confusion.

There is the more reason to ascertain this species by some determinate English name, in that it is supposed to possess the greatest virtue of any *speedwell*.

There was an opinion very lately, that it was a cure for the gout, and the leaves, picked and dried, sold for three or four shillings a pound. The people who deal in them adulterated them with those of the *germander-leaved speedwell*, to be described hereafter, and by that means they lost their credit, before it was found whether there were any foundation for the opinion of this great efficacy or not.

A decoction of the whole plant is a powerful diuretick and deobstruent: it is good in jaundices and the beginning of dropsies.

A slighter tincture of it, drawn by infusion, is a sudorifick, and good in fevers.

Its juice, boiled into a syrup with honey, is excellent in asthma and other disorders of the lungs; and used outwardly, in form of an ointment, it is good against the itch and other cutaneous disorders.

The decoction of it made very strong, and given as a glyster with the common additions of oil and sugar, is of prodigious efficacy in the tormenting pains of the nephritic cholick.

An infusion of the leaves, drank in the man-

ner of tea, is greatly recommended as a provocative to venery, and a strengthener: it has been called a cure for barrenness, taken a long time in this manner.

To these virtues we are to add, that it is placed foremost by many writers in the class of vulneraries.

3. Germander-leaved Speedwell.

Veronica chamædryos folio.

The root is slender, and edged with fibres.

The first leaves are long, narrow, of a pale green, serrated, sharp-pointed, and have no footstalks.

The stalks rise in the centre, and the leaves soon after fade.

They are slender and weak, but tolerably upright, and six or eight inches high.

The leaves stand in pairs, and are like those from the root, but shorter and broader: they are of a pale green, sharply serrated, and sharp-pointed; and they have no footstalks.

The flowers stand in long spikes rising from the bosoms of the leaves; and they are of a very bright blue, large, and beautiful.

The seed-vessels are heart-fashioned, large, and flat.

It is common in pastures, and flowers in July.

C. Bauhine calls it *Chamædryos spuria minor rotundifolia*. Ray, *Veronica chamædryos sylvestris dista*. Others, *Chamædryos sylvestris*.

Our common people call it *Blue tinker*.

They give the juice of it to children as a remedy for the rickets, and often with success.

4. Short-leaved Germanderlike speedwell.

Veronica chamædryoides foliis pediculis oblongis insidentibus.

The root is a small tuft of fibres.

From this grow many shoots, that trail upon the ground and take root in different places.

The stalks which support the flowers rise partly from these, and partly from the root: they are slender, weak, but imperfectly erect, and ten or twelve inches high.

The leaves stand in pairs, and do not grow to the stalk by their base, as in the last species, but stand on moderately long footstalks; and these, and the mainstalks also, are a little hairy: the leaves are short, broad, and dentated, of a dusky green, and a little hairy.

The flowers stand on footstalks rising from the bosom of the leaves in a kind of loose spikes, four, five, or six in each spike: they are small, and of a faint blue.

The seed-vessel is broad, flat, and heart-fashioned at the end.

It is common in our woods, and flowers in August.

C. Bauhine calls it *Chamædryos rotundifolia scutellata*. Ray, *Veronica chamædryoides foliis pediculis oblongis insidentibus*. Columna, *Alysson*. Dioscoridis, *Montanum*. Our English writers call it *Mountain madwort*.

It is pretended that the juice is good against madness, but there is no authority for it.

5. Ivy-

5. Ivy-leaved Speedwell.

Veronica hederae folio.

Plate 13
Fig. 5
The root is a cluster of small fibres.

The first leaves are roundish, but indented into three, and sometimes more divisions: they rise six or eight together, and have short footstalks.

The stalks are numerous, weak, and six or eight inches high.

The leaves stand alternately on them, and have footstalks: they are divided deeply into three parts, and in some degree resemble the leaves of ivy in miniature: their colour is a pale green, and they are hairy.

The flowers stand singly on short footstalks rising from the bosoms of the leaves; and they are small and bluish.

The seed-vessels follow, and are heart-fashioned: the seeds are numerous and small.

It is common in corn-fields and in garden borders; and flowers in April.

C. Bauhine calls it *Alfine hederae folio*. Ray, *Veronica, flosculis singularibus hederae folio*. In English we call it *Small henbit*, or *Ivy-leaved chickweed*.

6. Chickweed-speedwell with footstalks.

Veronica floribus singularibus in oblongis pediculis.

Plate 13
Fig. 6
The root is long, slender, and edged with many fibres.

The first leaves are short and broad.

The stalks are numerous and weak; some trail upon the ground, and some stand erect, and they are five inches high.

The leaves stand alternate, and they have short footstalks: they are broad, short, serrated, and sharp-pointed, but of a dead green.

The flowers stand singly on footstalks rising from the bosoms of the leaves, and they are small, and blue; sometimes, but more seldom, white.

The seed-vessel is large, and heart-fashioned, and is flattened at the top.

It is common on walls and in dry places, and flowers early in spring.

C. Bauhine calls it *Alfine chamadryfolia flosculis pediculis oblongis infidentibus*.

7. Chickweed-speedwell, without footstalks.

Veronica floribus singularibus caulibus adherentibus.

Plate 13
Fig. 7
The root is composed of a multitude of fibres.

The stalk is round, weak, and very much branched.

The leaves stand in pairs without footstalks, and are short and broad, of a pale green, slightly serrated at the edges, and a little hairy.

The flowers stand in a long series on the tops of the stalks and branches, and are small and blue, striated on the inside, and usually pale: these have no footstalks, but grow to the stalk; and under these there grow alternately leaves of a different form from those on the rest of the plant: they are short, oval, and not at all indented, and they somewhat resemble the leaves of garden-thyme.

7

The seed-vessel is flat and heart-fashioned.

It is common on walls and in dry places, where it grows from two to five inches in height. It flowers in spring.

C. Bauhine calls it *Alfine foliis veronicae, foliis et flosculis caulibus adherentibus*. Others, *Veronica foliis oppositis floribus sessilibus*.

8. Fingered-leaved speedwell.

Veronica foliis alternis digitatis.

Plate 13
Fig. 8
The root is long, slender, and furnished with a great number of fibres.

The stalks are numerous, round, thick, of a pale green, partly erect, and in part procumbent, and three or four inches in height.

The leaves are numerous, and stand irregularly: they differ from those of all the other species in shape, being divided in a fingered manner, some into three, and others into five parts. Those toward the bottom of the stalk are divided into five parts, these are separated down to the base in the manner of fingers; and the three middle divisions are longer, the two outside ones shorter; they are all narrow and pointed: the leaves on the upper part of the stalks are divided only into three parts each, and these, of the same form with the others: the lower leaves often fall off as the plant grows up; and the others only, or at least principally, remaining and appearing as each composed of three separate leaves, have occasioned many to call it *trifoliate speedwell*.

The flowers are large and purple: they stand on single footstalks rising from the bosoms of the leaves, and make a pretty appearance.

The seed-vessel is large, flat, and heart-fashioned, and contains many small seeds.

It is found in some of our northern counties in barren pastures and in gravel-pits; and flowers in May.

C. Bauhine calls it *Veronica triphyllis caerulea*. Lobel, *Alfine parva recta folio alfine hederae ruta modo diviso*. Others *Alfine recta*.

9. Bugle-leaved Speedwell.

Veronica bugulae folio subbirsuto.

Plate 13
Fig. 9
The root is long, slender, and full of fibres.

The leaves that first rise from it are large and oblong: they have short footstalks, and grow in a tuft, eight, ten, or more together.

Among these rise the footstalks, which are numerous, round, and somewhat hairy, and eight or ten inches high.

The leaves stand in pairs at distances, and are, like those from the root, oblong, broad, and placed on short footstalks: they are crenated at the edges, and obtuse at the end.

The flowers are large and blue: they stand in long spikes, sometimes one, sometimes three or more on the plant, according to its degree of nourishment.

The seed-vessels are heart-fashioned and flattened.

It is a native of Wales, and flowers in July.

It is described in the third edition of Ray's Synopsis under the name of *Veronica spicata Cambrobritanica bugulae subbirsuto folio*.

10. Little

10. Little, spiked Speedwell.

Veronica spicata minor.

Plate 13
Fig. 10
The root is long, divided into many parts, and edged with fibres.

The first leaves are oblong, broad, and of a pale green: they rise in a thick tuft, and frequently remain with the plant when in flower; whereas most of the others fade when the stalk rises.

The stalk is round, slender, of a pale green, and tolerably upright.

The leaves stand in pairs, and are short, little, and of a figure approaching to oval, but pointed at the ends: they have no footstalks, and are of a dead green.

The flowers are small and blue: they stand at the tops of the stalks in a thick, short spike.

The seed-vessels are deeply cordated, or heart-fashioned.

It is not frequent in England, but has been found on Newmarket heath, Lincoln heath, and in some other places.

C. Bauhine calls it *Veronica spicata minor*. J. Bauhine, *Veronica spicata recta minor*. Others, *Veronica recta minima*.

These ten are all the species of *Speedwell* that we have native in England. The brooklimes, of which we have three species, have been usually ranged among these, and called by the same name, *veronica*; but they have their separate name *becabunga*; their separate virtues; and enough in their characters to distinguish them. I shall, therefore, arrange them distinctly in the next genus, after describing those foreign *Speedwells* which curiosity has introduced into our gardens.

DIVISION II. FOREIGN SPECIES.

1. Broad-leaved spiked Speedwell.

Veronica spicata latifolia.

Plate 13
Fig. 11
The root is composed of numerous, large, and spreading fibres.

The stalk is round, upright, firm, and two feet high.

The leaves are oblong, broad, of a deep green, obtuse at the end, and irregularly indented at the edges, often so slightly that it is scarce perceptible.

The flowers are small, and of a pale blue, but they are very numerous, and stand in long, thick spikes.

The seed-vessel is small and heart-fashioned, and the seed is very small and brown.

It is frequent about the borders of forests in Germany, and flowers in July.

C. Bauhine calls it *Veronica spicata latifolia*. Others, *Veronica spicata major*.

2. Narrow-leaved spiked Speedwell.

Veronica spicata angustifolia.

Plate 13
Fig. 12
The root is long, divided, and furnished with many fibres.

The first leaves are long, narrow, and have no footstalks: they are of a dusky green, and rise in a thick tuft.

The stalks are numerous, erect, firm, round, and a foot high.

The leaves stand in pairs, and are long, narrow, of a pale green, sharp-pointed, and sharply serrated.

The flowers are small, and of a beautiful blue: they grow in long, thick spikes at the tops of the stalks.

The seed-vessels are flat and heart-fashioned: the seeds are small and brown.

It is frequent in Italy, and flowers in July.

C. Bauhine calls it *Veronica spicata angustifolia*. Others, *Veronica erecta angustifolia*.

3. Many-leaved spiked Speedwell.

Veronica spicata foliis ternis quaternis aut quinis.

Plate 13
Fig. 13
The root is long, divided, and full of fibres.

The stalks are numerous, round, firm, upright, and four or five feet high.

N° X.

The leaves are long and considerably broad: they have no footstalks, and they grow in an uncertain manner on the stalks, three, four, or five together; sometimes, but more rarely, only two: they are sharp-pointed and serrated.

The flowers are very numerous and white: they stand in a long spike at the top of the stalk, and frequently on others rising from the branches.

The seed-vessels are heart-fashioned, and the seeds are small.

It is a native of America.

Plukenet calls it *Veronica Virginiana procerior foliis ternis, quaternis et etiam quinis caulem amplexantibus spicis floribus caudicis*. Others, *Veronica altissima Americana*.

4. Narrow-leaved little Speedwell.

Veronica parva angustifolia.

Plate 13
Fig. 14
The root is long, divided into many parts, and furnished with numerous fibres.

The stalks are numerous, round, upright, branched, and of a pale green.

The leaves stand alternately, and at considerable distances: they are long, narrow, of a bright green, and grow to the stalk without any footstalks: they are undivided at the edges, and pointed at the end.

The flowers are small and white: they grow in the bosoms of the leaves all the way up the stalks, and have no pedicles.

The seed-vessel is large and heart-fashioned, and the seeds are small and brown.

It is frequent in the corn-fields of France and Italy; and flowers in May.

Morison calls it *Veronica annua alba polygonia folio*.

5. Great Germander-leaved Speedwell.

Veronica chamadryos folio maxima.

Plate 13
Fig. 15
The root is long, large, woody, and divided.

The stalk is firm, erect, of a woody hardness, and two feet high.

The leaves stand in pairs without footstalks, and are of a very regular and beautiful shape:

B b they

they are broadest at the base, smaller all the way to the point, and sharply serrated.

The flowers are small, and of a pale blue: they stand in long spikes, rising from the bosoms of the leaves, and from the top of the stalk; and many of them usually open together.

The seed-vessel is heart-fashioned, and not large.

It is a native of Germany, and flowers in July.

C. Bauhine calls it *Chamedrys spuria major altera frutescens*.

6. Jagged-leaved Speedwell.

Veronica foliis laciniatis.

The root is long, single, and furnished with a few fibres.

The stalk is firm, upright, a little hairy, a foot high, and is divided into several branches.

The leaves are numerous, and they are deeply and beautifully divided: their colour is a pale green, and they are a little hairy.

The flowers are small and blue: they stand on short footstalks in a kind of loose spikes.

The seed-vessel is heart-fashioned and small; and the seeds are minute and brown.

It is a native of Italy and Germany, and flowers in June.

C. Bauhine calls it *Chamedrys austriaca foliis tenuissime laciniatis*. Morison, *Veronica tenuissime laciniata*.

7. Large-flowered little Speedwell.

Veronica pumila flore majore.

The root is composed of many long and slender fibres.

The stalks are numerous, round, weak, and four inches high.

The leaves stand usually in pairs, though sometimes they grow irregularly on the lower part of the stalks: they are small, short, without footstalks, and sharply serrated.

The flowers grow at the tops of the stalks in little tufts, and are large, and of a beautiful blue.

The seed-vessels are heart fashioned and small.

It is a native of the mountainous parts of Italy.

C. Bauhine calls it *Chamedrys Alpina saxatilis*.

Others, *Teucrium petreum pumilum*. Others, *Bonarota* and *Paderota*, making it a distinct genus, but with little foundation in nature.

It is particular, that the leaves seem to have stood as the character of germander, with the old authors, rather than the flowers; for in germander those are of the labiated kind.

8. Dwarf Speedwell.

Chamedrys pumila.

This is a very singular, and very pretty species. The root is long, divided, and creeping.

The shoots are numerous from various parts, and they consist each of a large cluster of leaves, supported together on a short, firm stalk.

These are small, oval, of a beautiful green, and finely serrated at the edges.

Among these rise the stalks, which are minute, slender, and have no leaves. On their tops stand little clusters of flowers, four or five on each, which are large in proportion to the plant.

The seed-vessels are small and heart-fashioned.

It is common in the Pyrenean mountains, and flowers in spring.

C. Bauhine calls it *Veronica Alpina bellidis folio*.

GENUS XXVIII.

BROOKLIME.

BE CAB U N G A.

THE flowers consist each of a single petal, tubular at the lower part, and divided into four segments at the rim, and they stand in long spikes rising from the bosoms of the leaves, not on the tops of the stalks: the seed-vessel is heart-fashioned. The stalks are thick and fleshy, and the leaves stand in pairs.

Linnaeus places this among his *diandria monogynia*; but he takes away its determinate and distinct name, making it a species of *veronica*.

The flowers and seed-vessels indeed agree with those of *veronica*; but as it is useful to distinguish the plants from one another; and nature has given sufficient characters in the rest of the herb, we should therefore seek them there.

The determinations of this author, who is at present with many the oracle of botany, are not to be considered as so absolute, with respect to joining and separating the genera of plants, as some imagine. He frequently changes his own opinions; and to know what he has determined at present his last works must be seen. Thus, in the last species but one of the speedwells, Micheli had separated it from the rest, and taken away its name *veronica*, making it a distinct genus, under that of *bonarota*. Linnaeus, in his *Genera Plantarum*, followed this division, established the plant as a separate genus; and, again changing the name, called it *paderota*: but in his last published work he has again changed his opinion, and, destroying that new and idly founded genus, makes it a species of *veronica*. We give this as an instance, that the genera established by Linnaeus are not so irrevocable as some of his servile followers think; and as an excuse for our sometimes departing from them, for the sake of utility.

There are but three known species of *brooklime*, and they are all natives of this country.

1. Common

1. Common Brooklime.

Becabunga vulgaris.

The root is long, slender, and creeping: it runs among the mud, and sends out clusters of fibres in many parts.

The shoots that first rise from it are weak and slender: they often take root again as they lie upon the wet bottom.

The stalks are round, thick, fleshy, of a pale green, and ten inches high.

The leaves stand in pairs, and have no footstalk: they are broad, short, and lightly dented at the edges.

The flowers are small, but very numerous, and of a beautiful blue: they stand in long spikes which grow from the bosoms of the leaves; the top of the stalk being always terminated by a cluster of young leaves, not by a spike of flowers.

The seed-vessel is small and heart-fashioned: the seed minute and brown.

It is frequent in shallow waters, and flowers in June.

C. Bauhine calls it *Anagallis aquatica folio subrotundo*. He divides it into two species, under the name of a greater and lesser; but these are only accidental varieties. Others call it *Veronica aquatica*.

2. Long-leaved Brooklime.

Becabunga longifolia.

The root is long, thick, and furnished with many fibres.

The stalk is round, very thick and fleshy, upright, much branched, and a foot and half high.

The leaves stand in pairs: they are long, narrow, and serrated: they have no footstalks, and are of a pale green.

The flowers are small, and of a pale purple: they are very numerous, and stand in long spikes both on the main-stalk and the branches.

The seed-vessel is heart-fashioned, and the seeds are numerous and small.

It is common in shallow waters, and about the sides of ditches and rivers. It flowers from May to September.

C. Bauhine calls it *Anagallis aquatica minor folio*.

oblongo. Ray, *Veronica aquatica longifolia media*. Parkinson describes and figures it under the name of the *Lesser water parsnip*.

3. Narrow-leaved Brooklime.

Becabunga angustifolia.

The root consists of a few long, slender fibres.

The stalk is round, thick, fleshy, and ten inches high, very little branched, and of a pale green.

The leaves stand in pairs: they are long, narrow, and not at all serrated, sharp-pointed, of a deep green, and without footstalks.

The flowers are few in number, of a pale purple, often white: they stand on long, slender footstalks, and quickly fade.

The seed-vessel is heart-fashioned, broad, and flat.

It is not uncommon in watery places about woods. It flowers in June.

C. Bauhine calls it *Anagallis aquatica angustifolia scutellata*. J. Bauhine, *Anagallis angustifolia*.

These three species have the same virtues; but the first or common *brooklime* is possessed of them in so much greater a degree, that it ought only to be used.

It is an excellent antiscorbutick. Its juice, taken in spring, is one of the first of that class we usually call sweeteners of the blood. It may be given either alone or mixed with the juice of water-cress and of Seville orange.

An infusion of the whole plant is an excellent diuretick. It also promotes the menses; and is good in the jaundice, and dropsies.

A fresh and tender leaf of *brooklime* laid on a slight wound heals it without any other application.

It is an old practice to mix *brooklime* leaves and cobwebs for this purpose; but the *brooklime* does alone.

A large quantity of this herb put into beer, while brewing, gives it the virtues of an antiscorbutick and sweetener of the blood in a very happy manner.

A pulice of it, boiled tender, is excellent in the piles.

SERIES II.

FOREIGN GENERA.

GENUS I.

TOBACCO.

NICOTIANA.

THE flower consists of a single petal, which is tubular, divided into five segments, and distinguished by five folds at the rim: the seedvessel is a single capsule, of an oval figure, marked with a line on each side: the cup is divided into five segments, and remains with the fruit.

Linnaeus places this among the *pentandria monogynia*; the threads in each flower being five, and the style rising from the rudiment of the fruit single.

2

1. Broad-

1. Broad-leaved Tobacco.

Nicotiana latifolia.

The root is long, thick, divided into many parts, and furnished with fibres.

The stalk is round, thick, firm, erect, divided into a few branches, and six feet high.

The leaves are very large, long, and broad: they have no pedicles, but surround the stalk in great part at their base, and are of a deep green, and divided at the edges: they stand irregularly, and are very numerous.

The flowers grow on slender and long footstalks at the tops of the branches and of the main-stalk: they are very large, and of a beautiful red: they are long, tubular, and narrow at the bottom.

The seed-vessel is large, and the seeds are numerous.

It is a native of America. The Europeans became acquainted with it about two hundred years since; and from that time the demand has been so great for the dried leaves that it is one of the principal articles of the traffick of that part of the world.

C. Bauhine calls it *Nicotiana major latifolia*. Others, simply, *Nicotiana* or *Petum* and *Tobacum*.

2. Narrow-leaved Tobacco.

Nicotiana angustifolia.

The root is long, thick, divided into many parts, and furnished with numerous fibres.

The stalk is round, firm, erect, and four feet high, very little branched, and somewhat hairy.

The leaves stand alternately, and have no footstalk, but in part enclose the stalk at the base: they are very long and narrow: they are undivided at the edge, and sharp pointed.

The flowers are smaller than those of the former, but in themselves considerably large: they are of a faint red, long, tubular, and divided at the edge.

The seed-vessel is large, and the seeds are numerous.

It is a native of America, as the other, and flowers, with it, in June and July.

C. Bauhine calls it *Nicotiana major angustifolia*.

G E N U S II.

T H O R N A P P L E .

S T R A M O N I U M .

THE flower consists of a single petal, tubular, deep, and folded in five parts at the rim: the seed-vessel is of an oval figure, and contains two cells: the cup is oblong, tubular, bellied; marked with five ribs, and divided into five segments.

Linnaeus places this among his *pentandria monogynia*; the threads in each flower being five, and the style rising from the rudiment of the fruit single.

He has, however, taken away the common received name *stramonium*, and calls the genus *datura*.

1. Common Thornapple.

Stramonium vulgare.

The root is long, large, divided into several parts, and furnished with many fibres.

3. Short leaved Tobacco.

Nicotiana folio brevi.

The root is long, thick, divided into many parts, and furnished with numerous fibres.

The stalk is round, thick, hairy, and three feet high.

The leaves stand irregularly, and are broader and shorter than those of the common kind, and more hairy: they do not enclose the stalk at the base, as those do, but stand on pedicles, which are also hairy.

The flowers stand upon long, slender footstalks, at the top of the stalk and branches, and they are small, and of a greenish colour, with a tinge of yellow.

The seed-vessel is large, and the seeds are numerous.

It is a native of South America, and flowers in July.

C. Bauhine calls it *Nicotiana minor*.

4. Dwarf Tobacco.

Nicotiana minima.

The root is long, slender, simple, and furnished but with few fibres.

The leaves are numerous, oblong, broad, and placed on long footstalks.

They are pointed at the end, and not at all serrated at the edges, of a fleshy substance, and of a dusky green.

The flowers are small, but of a beautiful red: they stand on slender short footstalks rising from the bosoms of the leaves.

The seed-vessel is large, and the seeds are numerous.

It is a native of South America, and flowers in July.

C. Bauhine calls it *Nicotiana minima*.

All these species have the same virtues, but the first kind has them in the greatest degree.

It is a rough and violent emetic taken internally. The fresh leaves are greatly recommended against pain.

The use of them, dried in form of tobacco for smoking, and snuff for taking up the nostrils, is grown universal. It might either way be of great service as a medicine when required; but the frequent taking of it in wantonness is unhealthy.

toward the base: they stand irregularly, and are of a firm texture.

The flowers grow at the divisions of the branches, and are very large, and of a snow white, long, tubular, and hollow.

The seed-vessel is of an oval figure, and of the bigness of a walnut: it is covered with short, sharp prickles.

The seeds are large and brown.

Many insects are fond of the fleshy part of this seed-vessel; so that, when it has hung some time on the plant, it is not uncommon to see it eaten away between the solid parts, which then remaining entire, bleach in the air, and shew its skeleton.

It is a native of the southern parts of America, and flowers in August.

C. Bauhine calls it *Solanum sativum fructu spinoso oblongo flore albo*. Others, *Stramonium*, and *Datura fructu ovato*.

2. Round Thornapple.

Stramonium fructu rotundo.

The root is long, thick, divided, and spreading.

The stalk is round, firm, thick, and two feet high.

The leaves are numerous, and of a strong green.

They stand irregularly, and are of a heart-like figure, only not indented: they are broadest at the base, and all the way smaller to the point, and they have long footstalks: they are somewhat waved, but not indented at the edges.

The flowers rise from the bosoms of the leaves and at the insertions of the branches, and they are large, long, hollow, and white.

The fruit is round, prickly, and of the bigness of a chestnut.

It is a native of Africa and Asia, and flowers in July.

C. Bauhine calls it *Solanum fructu parvo spinoso rotundo longo flore*. Others, *Metel*.

3. Small-fruited Thornapple.

Stramonium fructu minore.

The root is large, divided, and spreading.

The stalks are numerous, woody, firm, and four yards high: they are irregular in their growth, and very much branched.

The leaves stand on long footstalks, and are of a beautiful green: they are oblong, and very deeply divided into a kind of broad, sharp-pointed segments.

The flowers are numerous, large, and beautiful: they rise from the stalks near the insertions of the leaves, and have short pedicles: they are purplish on the outside, white as snow within, and divided at the edge into segments, which terminate in a kind of tails.

The fruit is round, and of the bigness of a cobnut: it is sometimes covered with slight, soft prickles, and sometimes only rough on the surface. The flower also is frequently double.

It is a native of Egypt and some parts of the east; and flowers in Autumn.

C. Bauhine calls it *Solanum sativum fructu spinoso rotundo semine pallido*.

The leaves have an ill smell; but the flowers are sweet.

Alpinus calls it *Datura contravena*. Others, *Datura*, the name Linnaeus gives the genus.

The seeds of the common thornapple, taken inwardly, disturb the brain, and bring on a kind of madness.

Externally used, when fresh gathered and bruised, they are extolled greatly for the cure of the herpes.

An ointment of the leaves is also cooling.

The root, dried and powdered, may be given as an opiate: five or six grains for a dose. It alleviates pain, and procures rest.

The virtues of the plant are the same with those of opium, but it has them in a more violent and unmanageable degree.

G E N U S III.

M O U N T A I N S A N I C L E .

C O R T U S A .

THE flower consists of a single petal, tubular a little way at the bottom, and divided into five segments at the edge: the fruit is a single capsule, of an oblong, oval figure, pointed, and furrowed: the cup is very small, but divided into five open segments, and remains with the seed-vessel.

Linnaeus places this among the *pentandria monogynia*; the threads in the centre of the flower being five, and the style from the rudiment of the capsule simple.

1. Alpine Cortusa.

Cortusa alpina.

The root is composed of numerous long and slender fibres.

The leaves rise in a thick cluster: they are supported on long footstalks, and are broad, roundish, and deeply divided into segments, which are again serrated at their edges.

N^o 19.

They are of a dark green on the upper and under side, and of an acrid taste.

Among these rise several stalks, which are round, slender, redish, naked, and six inches high: they are usually redish toward the bottom, and pale at the top.

The flowers are moderately large, and of a beautiful strong red: they grow in a tuft at the top of the stalk, in the manner of the auricula

C c or

or cowslip, ten or twelve together, on slender, long footstalks, rising from the same point at the top of the main stalk.

The seed-vessel is oblong, and furrowed lengthwise; and the seeds are numerous and small.

It is a native of Germany, and flowers in July. C. Bauhine calls it *Sanicula montana latifolia*.

G E N U S IV.

B E A R S E A R.

A U R I C U L A.

THE flower consists of a single petal, tubular in the lower part, and divided into five broad segments: the seed-vessel is single and oblong, and the cup is very short, and divided into five segments: the leaves are fleshy.

Linnaeus places this among the *pentandria monogynia*, the threads in the flower being five, and the rudiment of the capsule and its style single: but he denies it to be a particular genus. He considers it as a species of cowslip. But from that genus it palpably differs in the shortness of the cup, and the fleshy substance of the leaves.

He thus takes away its usual and received name *auricula*; a name we have introduced into our own language, though we in general pronounce it ill: the proper name of this plant *bears ear* being neglected. Our gardeners preserve the word *auricula*; but they speak it *riculas*.

1. Common yellow Auricula.

Auricula vulgaris lutea.

The root is composed of a great many thick fibres, which spread every way, and penetrate deep.

The leaves rise in a little cluster six or eight together.

They are broad, oblong, of a whitish colour, lightly serrated at the edges, and of a thick, fleshy substance.

The stalk is round, thick, four or five inches high, and naked.

The flowers are large, open, and beautiful: they stand in a little cluster at the top of the stalk, each having its own separate footstalk. Their colour is yellow; but in this there is great variety. In nature it is of all the degrees of yellow, from the deepest to the palest, and to absolute white; and culture introduces variegations of many more kinds.

It is a native of Switzerland, and other of the northern parts of Europe, and flowers in June.

C. Bauhine calls it *Sanicula Alpina lutea*. J. Bauhine, *Auricula urfi flore luteo*.

Many of the *auriculas* described as distinct species by authors, are no other than varieties of this plant rising from culture: but Linnaeus is rash in making all those we see of that kind.

There are three distinct and original species of this genus; from these three, culture has raised all that amazing and beautiful variety we see in gardens; but not from this one.

2. Narrow-leaved red Auricula.

Auricula angustifolia flore rubente.

The root is composed of numerous, long, and slender fibres.

The leaves rise in a small tuft ten or twelve together, and have no footstalks: they are long, narrow, of a deep green, more or less covered

with a greyish dust, sharp-pointed, and serrated at the edges.

It is one of the famous wound-herbs of the Germans; but its virtues are not established by any known experience.

The stalk is three inches high, thick, naked, round, and of a pale colour.

The flowers stand in a cluster at the top, and are large, and of a bright red: each has its separate long footstalk, and they stand very upright.

The seed-vessel is oblong, and the seed minute.

It is a native of the Apennines. I have specimens of it collected in its wild state there, which shew it a perfectly distinct species; as is also the next to be described. There is no judging by what one sees in gardens, where the accidents occasioning varieties are endless: but in these collected wild there is no error.

C. Bauhine calls this *Sanicula Alpina angustifolia*. J. Bauhine, *Auricula urfi angustifolia colore rubente*. We, *Red auricula*.

3. Round-leaved red Auricula.

Auricula foliis subrotundis flore rubente.

The root consists of a small head, and a great multitude of fibres.

The leaves are numerous and erect: they stand on a kind of footstalks; but those are rather a continuation of the base of the leaf, than any thing regularly demanding that name: they are short, broad, roundish, and of a pale green: they are obtuse, and sharply serrated, and of a thick, fleshy substance.

The stalk rises in the centre, and is thick, firm, upright, naked, and about four inches high.

The flowers are large, and of a beautiful red: they stand in a tuft at the top of the stalk, each having its separate and proper footstalk.

The seed vessel is oblong, and the seed is small.

It is a native of Germany and Switzerland, and flowers in June.

C. Bauhine calls it *Sanicula Alpina rotundifolia*.

4. Long-leaved Auricula.

Auricula foliis oblongis integerrimis.

The root is a bunch of thick fibres, rising from a small oblong head.

The leaves are numerous, and they rise in a thick cluster: they are long, narrow, sharp-pointed, and undivided at the edges: they have no footstalks: their colour is a bright glossy green on the upper-side, and paler underneath.

The stalk rises in the centre of the tuft, and is four inches high.

The flowers grow in a small tuft at the top; often there are but two or three, rarely more than five: they are large, and irregularly divided into segments, which are deeply cut in, and pointed in the divisions: the cup is tubulous and obtuse.

It is a native of Switzerland, and flowers in May.

C. Bauhine calls it *Sanicula Alpina rubescens folio non serrato*. Others, *Auricula longifolia*.

5. Dwarf Auricula.

Auricula pumila.

The root is long, slender, and furnished with numerous fibres.

The leaves rise in a cluster, and are very small: they have no footstalks, and they are of a very singular shape, narrowest at the bottom, broadest at the top, and there deeply indented: the outer leaves of these little clusters are smallest, and the inner ones longest and largest, and of the freshest green.

The stalks rise among these; and are round, slender, short, and very minute, like the rest of the plant.

The flowers are large, and very beautiful: they are of a snow-white sometimes, and sometimes they have a blush of redish. One commonly stands on each stalk.

The seed-vessel is oblong, and the seeds are very minute.

It is a native of Germany, and flowers in April.

C. Bauhine calls it *Sanicula Alpina minima carnea*. Others, *Auricula urfi minima*.

G E N U S V.

N A V E L W O R T.

A N D R O S A C E.

THE flower consists of a single petal, which is tubular, and of an oval form in the lower part, and is divided into five segments at the edge.

The seed-vessel is a single, round capsule, having only one cell, and opening at the top: the cup is formed of one piece, pentangular, and divided into five segments.

Linnaeus places this among the *pentandria monogynia*, the threads in the flower being five, and the style from the rudiment of the capsule single.

1. Great Navelwort.

Androsace major.

The root is long, slender, and has few fibres.

The leaves rise in a thick tuft; and are large, oblong, and sharply serrated: they have no footstalks; they are of a pale green; and they are ribbed lengthwise, in the manner of plantain leaves.

In the centre of this tuft rise the stalks: they are numerous, weak, slender, naked, and about seven inches high: commonly of a pale green, but often purplish.

The flowers are small and white: they stand at the tops of the stalks in little tufts, after the manner of those of the cowslip or auricula, each on its own long footstalk.

The seed-vessels follow, and are round and large.

At the top of the stalk, where the flower-stalks rise, there is a small cluster of little leaves, which may be called a general cup.

It is common in the corn-fields of Germany, and flowers in August.

C. Bauhine calls it *Alfne officis androsace dicta major*. Others, *Androsace Matbioli major*.

2. Hairy Navelwort.

Androsace villosa.

The root is long, slender, tough, divided into many parts, and covered with a blackish bark.

The leaves rise in round tufts: they are numerous, very small, and oblong: they have no footstalks: their colour is a pale green, and they are very hairy.

The stalks rise in the centre of these tufts of leaves, one usually from each: they are small, slender, hairy, weak, and about three inches high.

There are no leaves on these, except a few at the top, which form a kind of general cup for the flowers.

From the summit of the stalk, where the leaves grow, rise also ten or a dozen short pedicles, each supporting a single flower: these are large for the bigness of the plant; and are either white, or of a beautiful pale red.

The seed-vessel is large and round.

It is a native of the Pyrenean mountains, and flowers in spring.

Authors have not well known where to place it.

C. Bauhine calls it *Sedum Alpinum bursatum lacteo flore*. J. Bauhine, *Chamaejasme Alpina*. Others, *Sedum Alpinum villosum*.

3. Narrow-

3. Narrow-leaved Navelwort.

Androsace angustifolia.

The root is small, long, divided, and furnished with a few fibres.

The leaves are long and narrow: they rise in clusters, several from one root; so that the first appearance of the plant is a complicated tuft: they are of a pale green, smooth on the surface, and undivided at the edges.

The stalks rise from the centre of these tufts, and are weak, slender, and naked; except that they have sometimes a little membrane, sometimes two or more, just where the footstalk of the flower springs.

The flower is large and white; sometimes there is one grows on a stalk, sometimes there are more. The seed-vessel is large and round, and the seeds are numerous and small.

It is a native of the mountainous parts of Austria, and flowers in spring.

C. Bauhine calls it *Sedum Alpinum gramineo folio laeteo flore.*

4. Sharp leaved Navelwort.

Androsace foliis acuminatis.

The root is long, slender, fibrous, and black.

GENUS VI.

MOUNTAIN BINDWEED.

SOLDANELLA MONTANA.

THE flower consists of a single petal, which is tubular at the bottom, and expanded and divided into five deep, narrow, and, as it were, ragged segments at the edge.

The seed-vessel is long and pointed, and the cup is divided into five segments.

Linnaeus places this among the *pentandria monogynia*; the threads being five in each flower, and the style from the rudiment of the capsule single.

The generality of authors have joined it with the common *soldanella*; but it differs from that by obvious characters, and plainly is a plant of its own kind, and of a peculiar genus.

I have avoided the error of confounding it with the other, but have retained its ancient name, that it may be known at once here.

Linnaeus, studying critical exactness more than utility, gives the name of *soldanella* to this plant alone; making the other a species of *convolvulus*; and such it properly is. While its distinct name was given to no other plant there could arise no error from that practice; but the student will not find in this herb the virtues recorded of *soldanella*: he is therefore to know this only with the addition of an epithet; and is to understand still, that the single word *soldanella* belongs to the other; not to this plant.

Of this genus there is but one known species.

Mountain Bindweed.

Soldanella. Pl. 15. 7. 1

This is not the only plant called *bindweed*, which has not a winding stalk: the name was first given to some of the species that had; and afterwards continued to such as had not.

The root of this is long and furnished with many fibres: it runs obliquely under the surface, and spreads greatly.

The leaves rise in a large cluster, and stand on long, redish footstalks: they are small, roundish, and smooth.

The leaves rise in little clusters, and spread themselves in a round form: they are narrow, of a deep green, smooth, and sharp pointed: they are broadest at the base, where they adhere to the top of the root; they thence grow smaller to the point, and they have no footstalks: there rise several long shoots among these clusters of leaves, that lie on the ground, and take root as they spread; and others that raise themselves upwards.

The stalk that supports the flowers is naked two or three inches high, and of a whitish green.

The flowers are large, and of a pale flesh colour: they are placed on short pedicels, eight or ten of which rise from the top of the stalk.

The seed-vessel is round and large: the seeds are numerous, and small.

It is a native of Switzerland, and flowers in May.

C. Bauhine calls it, *Sedum alpinum angustissimum folio flore carneo.*

The virtues of these plants are unknown.

GENUS

GENUS VII.

SOWBREAD.

CYCLAMEN.

THE flower consists of a single petal, formed into a rounded tube at the bottom, and at the rim divided into five segments that turn upwards: the fruit is a single seed-vessel of a rounded form, in some degree resembling a large berry, but opening into five parts at the top: the cup is rounded, and divided at the edge into five segments.

Linnaeus places this among the *pentandria monogynia*; the threads in each flower being five, and the style from the rudiment of the fruit single.

Mr. Ray, who is not exempt from errors, places it among the *herbæ bulbosæ offines*; of which we shall speak hereafter; but the flowers and seed-vessel refer it properly to the present class.

1. Ivy-leaved Sowbread.

Cyclamen foliishederæ. Pl. 15. 2.

The root is a large, black, irregularly shaped lump, white within, and furnished with numerous fibres.

The leaves rise in a considerable number, and stand on long, weak footstalks.

They are of an angulated form, not unlike some leaves of ivy; for in those there is great variety; they are heart-fashioned at the base, pointed at the end, and notched irregularly at the sides; and often are spotted.

The flower is large, and of a beautiful deep blue.

It stands on a tender, naked stalk, about four or five inches in height, and has a very singular aspect from the points running upwards.

The seed-vessel is large, and stands on a twisted pedicel; the upper part of the stalk, when the flower is fallen, turning in the manner of a cork screw.

It is a native of Germany and other parts of Europe, and grows in the damp parts of forests. It flowers in August.

C. Bauhine calls it *Cyclamen hederæ folio*. Linnaeus, *Cyclamen corolla retroflexa*.

This author allows only this single species of the plant: but there are two others; the round-leaved and the narrow flowered being absolutely different. Culture makes innumerable varieties from these three species, and the various kinds all rise from one or other of them; but not all from this one, as that author imagines.

2. Round-leaved Sow-bread.

Cyclamen rotundifolium. Pl. 15. 3.

The root is tuberous, large, and roundish; black on the outside, white within, and furnished with some long fibres.

The leaves rise in little clusters from different parts of it, and are supported by slender and weak footstalks: they are of a roundish, or rather oval figure; broad at the base, where they are a little heart fashioned, and narrower to the point: of a deep green, spotted usually with white, and purple underneath; and not at all notched at the edges.

The stalks are numerous, weak, naked, redish, and four inches high.

The flowers stand singly, one on each foot-

stalk, and they are large, and of a beautiful red: they have a pleasant smell.

The segments of this flower are broader and shorter than in the other species, and shew it to be essentially different.

The seed-vessel is large and roundish.

It is frequent in the damp forests of Switzerland, and flowers in September.

C. Bauhine calls it *Cyclamen orbiculato folio inferne purpurascens*. Others, *Cyclamen rotundifolium autumnale*.

3. Slender-flowered Sowbread.

Cyclamen floribus angustis. Pl. 15. 4.

The root is large and tuberous, black on the surface, white within, and hung with many fibres.

The leaves stand on long, slender footstalks, and they are large and angulated: they are of a deep green on the upper side, but frequently distinguished by white spots and white edges, and red underneath.

The stalks which support the flowers are long, weak, and redish: they are naked, and only one flower stands on each.

This is large, and of a beautiful pale red: the segments turn up as in the other kinds; but they are much narrower; and the flower, though equal in length, is vastly slenderer than in either of them.

The seed-vessel is smaller than in the others, and round.

It is a native of Italy, and flowers in spring.

C. Bauhine calls it *Cyclamen folio anguloso*. J. Bauhine, *Cyclamen flore rubro graciliore perennum*.

The two other species are properly autumnal: they flower toward the end of summer, at which time there are no leaves on the plant. When the flowers are faded the leaves appear, and remain green all winter: they die off in May, and nothing is then seen till autumn.

They all agree in virtues, being gently purgative.

The root, dried and powdered, is best for this purpose; and the dose is five and twenty grains. It is good in the jaundice and all obstructions of the viscera.

The fresh juice of the leaves is excellent against inflammations of the eyes. It is also good in the piles.

G E N U S VIII.

A Z A L E A.

A Z A L E A.

THE flower consists of a single petal, which is long, tubular, and divided into five segments at the edge: the fruit is a single capsule, of a round figure, containing five cells; and the cup is small, coloured, formed of one piece, and divided into five segments.

Linnaeus places this among the *pentandria monogynia*; each flower having five threads, and the style from the rudiment of the fruit being single.

Authors have been perplexed where to put the several plants belonging to this genus: some have called them *cistus*'s; but the difference is very obvious, as will be seen when we treat of *cistus*, that genus being of another class.

1. Procumbent Azalea.

Azalea procumbens. *Pl. 15. 5*

The root is long and spreading, divided into many parts, and furnished with numerous fibres.

The shoots are numerous, and spread every way upon the ground into a very large and thick tuft.

The stalks are woody, and covered with a dark coloured rind, tough, thin, and four or five inches long, sometimes much more.

The leaves are very numerous and very small: they are of a dark green, and they stand in pairs: they are oblong, slender, and sharp-pointed.

The flowers grow at the tops of the branches, two, three, or more together: they are large, and of a beautiful red.

The seed-vessel is large, and contains many seeds.

It is a native of the mountains of Germany, and flowers in July.

C. Bauhine calls it *Chamaecistus serpyllifolia floribus coccineis*. Others, *Cistus serpyllifolia*: but the leaves are narrower than to be properly expressed by that name.

G E N U S IX.

L E A D W O R T.

P L U M B A G O.

THE flower consists of a single petal, which is tubular in the lower part, narrower toward the neck than near the bottom, and divided into five segments at the edge.

The fruit is a single capsule, of a rude and imperfect form, containing only one seed: the cup is formed of one piece, and is pentangular, rough on the surface, and divided into five segments at the rim.

Linnaeus places this among the *pentandria monogynia*; the flower having five threads, and the style from the rudiment of the capsule being single.

1. Common Leadwort.

Plumbago vulgaris. *Pl. 15. 7*

The root is long, large, and furnished with many fibres.

The first leaves rise in a thick, small tuft, and are of a deep green, broad, somewhat oval in shape, and without footstalks.

The stalks rise in the centre of the tuft, and are round, firm, upright, very much branched, and two feet high: they are usually of a deep purplish colour, often blackish.

2. Clammy Azalea.

Azalea viscosa. *Pl. 15. 6*

The root is woody and spreading.

The shoots are numerous and tough, woody, and covered with a grey rind.

The leaves are frequent, of a pale green, and pinnated: each consists of three or more pairs of large, oval pinnæ, with an odd leaf much larger than either at the end: they are hairy and not serrated.

The flowers stand in little clusters at the tops of the branches, eight or ten together: they are long, slender, and very beautiful, and have a fragrant smell: they are hairy on the outside, and clammy to the touch.

The seed-vessel is small, but contains numerous seeds.

It is a native of Virginia, where it is common in the woods.

Plukenet calls it *Cistus Virginiana flore et odore periclymeni*.

These plants have no known virtues.

enclosing a single seed of the bigness of a corn of wheat.

It is a native of Italy, and flowers in July.

C. Bauhine calls it *Lepidium dentillaria dictum*: Others, *Plumbago Plumii*.

2. Heart-leaved Leadwort.

Plumbago foliis cordatis. *Pl. 15. 8*

The root consists of a number of thick fibres, brown, tough, and hot to the taste; filling the mouth with water when chewed, in the manner of pyrethrum.

The first leaves are large, and of a deep green, they rise eight or ten together: they have long footstalks, and are oblong and broad, not dentated

at the edge, heart-fashioned at the base, and pointed.

The stalk is round, firm, upright, and two foot high.

The leaves stand irregularly on it, and resemble those from the root: the lower ones have considerable footstalks; those on the upper part of the stalk and branches have none.

The flowers are very beautiful, large, and snow white.

Their cup is hairy: the fruit is long and rough.

It is a native of Ceylon, but grows freely in our gardens.

Commelin calls it *Lychnis Indica spicata cymastri folio, fructibus oblongis lappaceis, radice urente*.

G E N U S X.

L Y C H N I D E A.

L Y C H N I D E A.

THE flower consists of a single petal; the lower part is tubular, long, and bent; and the rim is divided into five broad segments: the fruit is a single capsule, of an oval figure, but with three ridges, and contains three cells: the cup is formed of a single piece, marked with ten ridges, and divided into five segments.

We have yet no English name for this genus.

Linnaeus places it among the *pentandria monogynia*; the threads in each flower being five, and the style from the rudiment of the capsule single.

This author takes away the received name of the genus, and calls it *phlox*: we preserve that by which it is best known.

1. Narrow-leaved hairy Lychnidea.

Lychnidea angustifolia villosa. *Pl. 15. 9*

The root is long, slender and creeping.

The first leaves rise in a very thick tuft: they are long, narrow, and of a dusky green: they have no footstalks, and are a little hairy.

The stalks rise in the centre, and they are round, firm, numerous, and a foot high: they are very little branched, and are of a brown colour, and a little hairy.

The leaves stand in pairs, and have no footstalks: they are long, narrow, and sharp-pointed, hairy, not at all divided at the edges, and of a beautiful green.

The flowers stand in a tuft at the top of the stalks, and are large, and of a pale red, sometimes of a deeper, and sometimes white: the cups are woolly.

The seed vessel is large, and the seeds are numerous.

It is frequent in Virginia, and flowers in July.

Ray calls it *Lychnoides marilandica calyculis lanuginosis foliis angustis acutis*. Plukenet, *Lychnidea umbellifera blattaria accedens Virginiana major repens pseudomelanthii foliis pilosis flore pentapetaloides fistuloso*.

2. Small-leaved Lychnidea.

Lychnidea foliis parvis. *Pl. 15. 10*

The root is long, slender, and full of fibres.

The shoots that first sprout from it lie upon the ground, and take root in numerous places.

The stalk is upright, round, firm, of a pale green, a little hairy, and about six inches high.

The leaves stand in pairs upon it: they are very small, and not numerous: they are of a dusky green, and hairy, and generally droop: they are narrow, oblong, and have no footstalks. From the bosoms of these rise young shoots, which have the same kind of leaves on them, but in a greater number; as have also those which first come up, and which trail on the ground.

The flowers are large and very beautiful: they have each its separate hairy footstalk; and they generally rise opposite to one another.

The seed vessel is large, and the seeds are numerous.

It is a native of Virginia.

Plukenet calls it *Lychnidea blattaria accedens Virginiana minor repens, hirsutis campborata foliis*. Linnaeus, *Phlox foliis subulatis hirsutis, floribus oppositis*.

3. Narrow-leaved smooth Lychnidea.

Lychnidea angustifolia glabra. *Pl. 15. 11*

The root is long, slender, creeping, and full of fibres.

The stalk is round, tender, of a pale green, branched, not at all hairy, and five inches high.

The leaves are very numerous, and of a pale green: they stand in pairs, and are extremely narrow; but they are broadest at the base where they adhere to the stalk, and smaller all the way to the point.

The flowers are large, and stand singly at the tops

tops of the branches: they are of a beautiful flesh colour; sometimes deeper, and sometimes white. The seed-vessel is small, and the seed minute.

It is a native of Virginia, and flowers in June. Plukenet calls it *Lychnidea blattarie accedens Virginiana camphorata glabris foliis*.

G E N U S XI.

GUINEA PEPPER.

CAPSICUM.

THE flower consists of a single petal, which is tubular at the bottom, divided into five pointed segments, and folded.

The fruit is a large capsule, formed of a thick, coloured, rind; and contains numerous seeds in two cells.

The cup is formed of a single piece, divided into five segments, and remains with the fruit.

Linnaeus places this among the *pentandria monogynia*; the threads being five in every flower, and the style from the rudiment of the fruit single.

He calls this fruit a berry without any pulp. Its shape and texture shew the contrary.

1. Common Guinea Pepper.

Capsicum vulgare. Plac. 15. 12

The root is composed of a great many thick and spreading fibres.

The stalk is round, thick, striated, very much branched, and a foot and half high.

The leaves are numerous, and of a very beautiful green: they stand irregularly, and have long footstalks. They are large: broadest at the base, smaller to the point, and not at all serrated at the edges.

The flowers are large and white: they stand in the divisions of the branches.

The fruit is large, long, and green at first, but when ripe, of a beautiful red. Its high colour and smooth surface give it the appearance of polished coral.

It is a native of Africa and of South America; and flowers in July.

C. Bauhine calls it *Piper indicum vulgatissimum*. Others, *Capsicum vulgare*.

2. Small-fruited Guinea Pepper.

Capsicum frutescens parvo. Plac. 15. 13

The root is composed of a great number of long and thick fibres.

G E N U S XII.

ROELLA.

ROELLA.

THE flower consists of a single petal, which is formed into a short tube at the bottom, and divided into five broad segments at the rim: the fruit is a short capsule, containing two cells, and crowned with the cup; which is of a single piece, divided into five pointed and dentated segments.

Linnaeus places this among the *pentandria monogynia*; the threads in each flower being five, and the rudiment of the fruit single.

Others have called these plants species of *campanula*, but wrongly.

Prickly Roella.

Roella spinosa. Plac. 15. 14

The root is long, fibrous, and of a brown colour.

The stalk is round, firm, upright, and a foot high, and is not much branched.

The leaves are numerous, and stand irregularly: they are large, and of a deep green: they stand on long footstalks, and are broadest toward the middle, and terminate in a sharp point.

The flowers are small, and of a greenish white: they do not rise singly from the divisions of the branches, but in clusters, three or four together, from the sides of the mainstalk, supported by a general pedicle, and each flower also by its own.

The fruit is roundish: it is not bigger than a cherry; and, when ripe, it is of the same fine red colour and glossy surface with the common kind.

It is a native of Africa, and flowers in June. The fruit is hot to the taste, but not so violently as that of the other.

The fruit of the common kind is used in sauces: when dried and powdered, it makes what we call Cayenne pepper. That of the last described species is more esteemed in Africa than the other; having less acrimony and a better flavour.

The stalks are woody, numerous, slender, firm, tolerably erect, and eight or ten inches high; sometimes they will grow considerably larger.

The leaves stand irregularly, and are small, slender,

slender, and hairy: the whole aspect of them, at a distance, is not unlike that of some of the kinds of heath in their young shoots; but, when handled, they are prickly.

The flowers are large and very beautiful: they stand singly on the tops of the branches, and are of a pale purple, sometimes of a deep violet colour, and sometimes almost white.

The seed-vessel is very short, and the cup continues on it enlarged.

It is a native of Africa, and principally about the sea coast.

Commelin calls it *Campanula Africana spinosa flore violaceo*.

Its virtues are not known.

G E N U S XIII.

FLOWERING REED.

CANNACORUS.

THE flower consists of a single petal, and is divided into six parts irregularly disposed: the fruit is a single capsule, which is large, rough, and contains three cells: the cup is composed of three leaves, which are small, coloured, and permanent.

Linnaeus places this genus among his *monandria monogynia*; there being only a single filament or thread in each flower, and the rudiment of the capsule being also single.

He reduces the old name *cannacorus* to a shorter, calling it *canna*.

Broad-leaved Flowering Reed.

Cannacorus latifolius. Plac. 15. 15

The root is tuberous, and of an irregular figure, full of thick parts, and of long and large fibres.

The first leaves are very large, long, and broad; of a fresh and beautiful green, and placed on hollow footstalks: they are pointed at the end, and waved at the edges.

The stalk is round, firm, upright, and three or four feet high, and is covered the greatest part of the way up, by the scabbards of the leaves.

The leaves stand irregularly on it, and are, like those from the root, broad, large, of a fresh green, and sharp-pointed.

The flowers are large, and of a beautiful red; long, and very singular in their structure: they are divided to the base, the segments adhering to one another only there; and these are irregular in form, as well as disposition: three of them stand outward, and are erect and shorter; the other three stand inward, and are longer; and of these, two are erect and one is reflex.

The seed-vessel is large, and very rough on the surface; and the seeds are large and few.

It is a native of Asia and Africa, and of the warmer part of America; and flowers in June.

C. Bauhine calls it *Arundo indica latifolia*. Others, *Cannacorus*, and *Canna*.

Its virtues are not known with certainty.

IT may appear, to those who are unacquainted with the practice of physick, that the virtues attributed to plants in this work are too few; and the detail too short on that head.

To obviate this objection, it will be proper once to observe, that the error of most books written on this subject is ascribing too much to most plants. Whoever shall turn over the writings of Gerard and Parkinson, in this view, will see that almost every herb is said to be a cure for almost every disease; and the same fault runs through most others, in a greater or lesser degree.

Hence, the young physician, unable to judge what he is to regard, and what neglect, has in a manner rejected all: because too much has been written of the virtues of plants, too little is believed. From this, chemical medicines, made principally from minerals, have come so generally into use, and the galenical, obtained mostly from plants, have been and are so much neglected.

To remedy this evil, the utmost care has been taken, throughout the course of the present work, to distinguish the real from the imaginary virtues of plants: the former have been carefully preserved; and the latter rejected.

For this reason the catalogues of virtues will appear shorter in this than in other books of a like kind; but, it is apprehended, it will therefore be more useful.

This is a point that has demanded the author's principal attention; and deserves that of every writer more than any other part in a work on this subject: the rest is amusement, but in this the healths and lives of mankind are concerned.

The END of the FOURTH CLASS.

BRITISH HERBAL.

THE

CLASS V.

Plants whose flower consists of a SINGLE PETAL of an irregular form, and whose seeds are contained in a SINGLE CAPSULE.

THIS, like the preceding, is a class perfectly and obviously distinguished by nature from all others: yet, Linnæus, who has for some years led the botanical students according to his fancy, has disposed the plants of which it consists in various and very distant parts of his works: some of them are separated from others by eleven intermediate classes, and by almost six hundred genera.

They all perfectly agree in those two essential and obvious characters, that the flower consists of a single petal, and the seeds are enclosed in a single capsule.

They differ from those of the last class in that the flower is of an irregular form. As in those it is plain and regular: in these it is, for the most part, of the labiated kind, or of a form nearly approaching to that structure.

Mr. Ray saw this distinction between the plants of the present, and those of the preceding class, but he has arranged them only under two divisions of the same class, making them essentially agree: this is a practice not liable to the censure of error; though the keeping them distinct is much more useful.

Though the flowers in the plants of this class agree, in a great measure, with those of the labiated kind, yet the distinction is very great in the disposition of the seeds: these in the labiated plants, properly so called, stand naked in the cup of the flower; and in those of this genus they have a regular capsule.

This is a sufficient distinction in nature; yet, Linnæus, who does not regard either the shape of the flower or condition of the seeds as a classical character, but builds that division upon the number and disposition of the filaments or threads in the flower, places the greater part of these plants in the same class with the labiated kind; as the *linaria*, *pedicularis*, and the rest; and makes their having a capsule for the seeds only a subordinate distinction, as Mr. Ray does the peculiar shape of the flower: others of them, as the *pinguicula* and *lentibularia*, he places among his *diandria*; and the *gladiolus lacustris*, separately from all the rest, among his *syngenesia monogamia*.

I save the student the labour of turning to different parts of a work to seek for plants of the same kind; and shall keep them together in his memory, by placing them together in the plates.

The intent of this work is to render the study of plants familiar. As none will be supposed to understand the science, while the present fashion lasts, who is not able to converse upon it in the language of Linnæus, I shall occasionally explain his terms: and as none has perplexed the study so much by a new method as this author, I shall teach the reader at once to understand it, and neglect it.

SERIES

SERIES I.

NATIVES OF BRITAIN.

Those of which one or more species are naturally wild in this country.

GENUS I.

BUTTERWORT.

PINGUICULA.

THE flower consists of a single petal, formed into two lips and a long spur: the upper lip is divided into four segments, the lower into two, and the spur runs out behind: the cup resembles the divisions of the flower, and remains with the seed-vessel: this is a single capsule, of an oval form, but compressed at the top.

Linnæus places this among the *dyandria monogynia*; the threads in the flower being two, and the rudiment of the seed-vessel and its filament or style single.

From this number of the threads he places *pinguicula* in the same genus with the *jasmine*, *olive*, and *lilac*, separating it from the *pedicularis*, because that has four, two longer and two shorter; which, with the others, he therefore joins to other unlike plants.

DIVISION I. BRITISH SPECIES.

1. Common Butterwort.

Pinguicula vulgaris. *Michx.* 1611.

The root consists of numerous thick fibres, rising from a longish head, and spreading irregularly under the surface.

The leaves are numerous, and rise in a thick cluster.

They have no footstalks: they are broadest at the bottom, undivided at the edge, and sharp at the point: their colour is a pale yellowish green, and they are of a fleshy substance.

The stalks rise in the centre, four or five together.

They are slender, naked, and undivided: each supports a single flower.

This is large, and very beautiful: it resembles, in some degree, a violet: its colour is a pale purple, pale red, or white; for there are all these variations frequent, and it has a long spur.

The seed-vessel is large, oval, compressed at the end, and without any division within. The seeds are numerous and very small.

It is frequent in the north of England upon boggy ground, and flowers in June.

C. Bauhine calls it *Sanicula montana flore calcarati donato*. Others, *Pinguicula vulgaris*.

2. Lesser Butterwort.

Pinguicula minor. *Michx.* 1611.

The root is composed of a great cluster of fibres, which have no other head than the base of the leaves: they are very slender, black, long, and run perpendicularly.

The leaves are numerous, oblong, and lie spread upon the ground.

They are narrow toward the base, broadest near the middle, and small again at the point:

their colour is a pale green, and they have red veins: they are thin, and, as it were, naked.

The stalks are slender, about three inches high, and quite single or undivided.

One flower stands on the top of each, and this is small, and of a pale red, or white: the spur in this is thicker and shorter than in the common kind.

The seed-vessel is small, and the seeds are very minute, and of a dusky colour.

It is frequent in Cornwall and our other western counties on bogs; elsewhere it is rare.

It flowers in May.

Merret calls it *Pinguicula minima flore albo*; that is, butterwort with a white flower; but the more usual colour is red. Ray calls it *Pinguicula flore minore carneo*.

The common butterwort has considerable virtues both inwardly and outwardly; but they are not much known out of the places where it grows, because it can neither be well kept in our gardens nor brought fresh to our markets.

The whole plant, bruised with white wine, and the juice, expressed, and taken thick as it comes from squeezing, is a rough but useful medicine in dropsies.

A syrup made of the juice has the same virtue, but in a milder degree. It is a good purge, and operates also by urine.

The people of Yorkshire make an ointment of the leaves and hogs-lard, with which they dress chaps and injuries in their cows udders: this has led them to use it for hurts and sores upon themselves; and it stands, upon experienced report, as an excellent vulnerary.

Those to whom we owe the knowledge of it thence called the plant *Yorkshire sanicle*.

DIVI-

DIVISION II. FOREIGN SPECIES.

Butterwort with a short spur.

Pinguicula calcar breviflora.

The root consists of numerous fibres, rising from a small head: they are redish, thick, and irregular, and spread under the surface.

The leaves rise in a thick cluster, ten or twelve together.

They are long, and have no footstalks: they are broadest near the base, narrower at the point, and of a pale green colour and fleshy substance.

The stalks are slender, naked, and three inches high.

The flowers stand singly, one on each, and they are small and white, and have a very short spur.

The seed-vessel is oval and large.

It is frequent on the mountains in Germany, and flowers in June.

Ray calls it *Pinguicula flore albo minore calcar breviflora*.

GENUS II.

TOADFLAX.

LINARIA.

THE flower consists of a single petal, and has a labiated aspect: it is formed into an oblong tube, with a spur and a pair of lips, the space shut between them. The upper lip is divided into two parts, and turned back at the sides: the lower lip is divided into three parts, and is obtuse; and the piece which shuts up the space between the lips, and may be called the palate, is convex: this rises from the lower lip. The cup is formed of a single leaf divided into five segments, and remains when the flower is fallen. The seed-vessel is roundish, plain, and, when ripe, divided in a regular manner.

Linnæus places this among his *didynamia angiospermia*; separating it eleven classes from the *pinguicula*, to which it is so evidently allied.

That plant, because there are only two threads in each flower, he places among the *diandria*. This has its rank with the *didynamia*; because it has in each flower four threads, two of which are longer, and two shorter: it comes under the distinction of *angiospermia*, because its seeds are contained in a capsule; those of the other division of that class standing naked in the cup.

Linnæus does not allow *linaria* to constitute a distinct genus in this class; but, taking away the antient and received name, he makes it a species of *antirrhinum*, calling all the kinds of *toadflax* species of *snaydragon*.

Antirrhinum and *linaria* agree, indeed, as plants of the same class; each having a flower consisting of a single petal; each a capsule for the seeds, and each, to follow this most ingenious author's more minute researches, four threads; two longer, and two shorter.

This brings them all into the same class; but there is distinction enough between them to keep them in separate genera; and this is the more needful to be observed, because the species of each are numerous, and the joining them all under one generical name would create difficulty, if it did not introduce confusion.

The difference between *toadflax* and *snaydragon* is this: the flower of *toadflax* has a long and sharp spur, and the capsule of the seeds is plain, regular in shape, and divides regularly when ripe; on the contrary, the flower of *snaydragon* has no spur, and the capsule is irregularly and singularly constructed at the bottom, and opens unequally.

This is a very sufficient distinction of the genera: Linnæus knew this, for he has mentioned it; and if he had not, there would be no doubt of his having observed it; because no author has examined the structure of flowers so accurately, or understood their several parts so well. His faults are not those of omission: his misfortune, and that of the world, has been that, having formed a system, which did him credit by its novelty, he would not depart from it in favour of even his own observations.

This author has not only thus joined the *linaria* and *antirrhinum* in one genus, but he comprehends under the same character and name also, the *cymbalaria* and *elatine*; plants which we shall shew in the succeeding genera to be sufficiently distinct, and well entitled to their separate names.

DIVISION I. BRITISH SPECIES.

1. Common Toadflax.

Linaria vulgaris. *Pl. 16. 11. 3*

The root is long, slender, whitish, hard, and furnished with a few fibres.

The first leaves are small, slender, pointed, and of a yellowish green: the stalk soon grows up amongst these, and they immediately fade.

The stalk is round, firm, upright, and two foot high.

It

5

It is of a pale bluish green, sometimes simple, and frequently divided into several branches.

The leaves are numerous, and stand irregularly: they are long, narrow, undivided at the edges, and without footstalks.

Their colour is a pale bluish green.

The flowers are large, numerous, and beautiful: they stand in a kind of spikes at the tops of the stalks, and are in general of a very pale and very beautiful yellow, with a deeper, or orange yellow in some parts.

The seed-vessel is large and round: the seeds are small and brown.

It is common on dry banks, and flowers in June.

C. Bauhine calls it *Linaria vulgaris lutea flore majore*. Others, *Linaria vulgaris*.

Our common people, from the mixture of a very pale and deep yellow, call it *Butter and eggs*.

2. Blue, sweet Toadflax.

Linaria cerulea odorata.

The root is long, slender, hard, whitish, and furnished with many fibres.

The stalks are numerous, and a foot and half high: they are round, slender, upright, and rarely divided into branches.

The leaves are very numerous, and they stand thick and close upon the stalk: they are of a pale green, very narrow, and have no footstalks.

The flowers stand at the tops of the stalks, and are of a beautiful pale blue, and striated.

The seed-vessels are large and rounded.

It is found in Cornwall and Devonshire; and flowers in July.

C. Bauhine calls it *Linaria capillaceo folio erecta, flore odoro*. J. Bauhine, *Linaria odorata minus pappulana*.

3. Short-leaved Toadflax.

Linaria foliis brevibus. *Pl. 16. 11. 4*

The root is long, slender, woody, and divided, and is hung with a few fibres.

The first leaves rise in a small tuft, and are oblong, somewhat broad, and of a pale green: they have no footstalks, and when the stalk rises they quickly fade away.

The stalk is round, upright, a foot and half high, seldom branched, though usually there rise a few shoots from the bosoms of the leaves near the top.

The leaves are numerous, and of the shape of those of the common *toadflax*, but shorter: they have no footstalks: their colour is a pale green: they are undivided at the edges, sharp-pointed, and of a fleshy substance.

The flowers stand in a kind of spikes at the top of the stalks and branches, and they are of a beautiful pale blue.

The seed-vessels are large, and the seeds are small and brown.

It is found in Surry and some of the adjacent counties, in cornfields, and barren pastures, and on walls: it flowers in July.

Robinus calls it *Linaria osyris flore cinericeo*; but the flower is properly of a pale blue, not ash-coloured.

Nº 11.

4. Small, red Toadflax.

Linaria parva rubescens. *Pl. 16. 11. 5*

The root is small, woody, divided, and spreading.

The stalks are numerous, weak, round, upright, and very much branched: they are eight inches high, and of a pale green.

The leaves are numerous, and stand irregularly: they are narrow, long, and of a dusky green.

The flowers stand at the tops of the stalks, and separately on other parts of the plant, rising from the bosoms of the leaves: they are small, and of a pale red.

The seed-vessel is round, and the seeds are small.

It is common in our cornfields, and flowers in June.

Ray calls it *Linaria antirrhinum dista*; distinguishing it from the *antirrhinum*, with which others had joined it, from the shape and structure of the flower and seed-vessel. C. Bauhine calls it *Antirrhinum arvense minus*. Others, *Antirrhinum arvense minimum*: this is the more improper, as we have wild also in our cornfields a species of *snaydragon*, properly so called.

The common *toadflax* is a plant possessed of virtues too much neglected. It has its uses both inwardly and outwardly, and in both kinds very worthy of notice.

The whole fresh herb boiled in ale is a country purge; it operates briskly, and also promotes urine.

The fresh herb bruised, with some white wine, is a stronger purge, and sometimes works also by vomit.

An infusion of the whole herb, root and all, just before it gets into flower, works very powerfully by urine.

In either of these forms it is excellent against dropsies: in the beginning of that disease the infusion is the best method of giving it; when it is more advanced the country decoction in ale is proper; and when the disease is violent, and the constitution can bear it, the expressed juice, in the manner we have named, with white wine, is best of all.

The juice of the leaves is excellent against inflammations of the eyes. We owe this to Tragus, who reports it as confirmed from his own long experience; and trials since made shew it was true.

The juice is also excellent for cleansing old ulcers.

A decoction, or strong infusion of the tops, taken morning and evening, cures the jaundice.

An ointment or pultice, made with the leaves of common *toadflax*, is excellent in the piles.

The several other species of *toadflax*, English and foreign, possess the same virtues, though most of them in a lesser degree. The *antirrhina* of some species have very different qualities, a sufficient reason why they should be kept as nature has disposed them, distinct, and under separate names.

DIVISION II. FOREIGN SPECIES.

1. Yellow, trifoliate Toadflax.

Linaria trifoliata flava. *Pl. 16. 6*

The root is long, slender, whitish, and furnished with numerous fibres.

The stalks are slender, upright, numerous, and a foot and half high: they are of a pale yellowish green, and usually run up single, without any divisions into branches.

The leaves are numerous, broad, short, of a dusky green, and they have no footstalks.

They grow irregularly, but most frequently three from one place: from this it obtained the name of *trifoliate toadflax*; but tho' most of the leaves grow in this manner: there are frequently some that stand in pairs, and commonly a good number that grow singly toward the top of the stalk.

The flowers are large and beautiful: they are of a mixt yellow, and have long, sharp spurs.

The seed-vessel is round, and the seed is blackish.

It is a native of Spain, and flowers in July. C. Bauhine calls it *Linaria triphyllus minor lutea*. Others, from Clusius, *Linaria valentina*.

2. Four-leaved Toadflax.

Linaria quadrifolia. *Pl. 16. 7*

The root is small, long, whitish, and divided: it has many fibres, and partly by them, partly by its own divisions, spreads a great way under the surface.

The stalks are numerous, slender, weak, and a foot long.

They lie in part upon the ground, and in part raise themselves, but feebly and in an irregular manner.

The leaves are numerous, and placed with great regularity: four rise from the same spot all the way up the stalk, and these several fours are kept at pretty large distances.

The leaves are separately longish, narrow, undivided at the edges, sharp at the points, without footstalks, and of a pale green.

The flowers are large and of a pale yellow, and they stand in clusters at the tops of the stalks.

The seed-vessel is large and rounded; and the seeds are small and black.

It is a native of Spain, Italy, and Germany, and spreads at random over a great deal of their dry, barren grounds. It flowers in June.

C. Bauhine calls it *Linaria quadrifolia lutea*. Columna, *Linaria tetraphylla lutea minor*. We, *Four-leaved toadflax*.

3. Low, purple Toadflax.

Linaria purpurea procumbens. *Pl. 16. 10*

The root is composed of a multitude of thick, irregular, white, and woody fibres: they rise from a small head, and spread themselves far under the surface.

The stalks are very numerous, twenty or more rising from the same head of the root: they are round, slender, weak, and of a pale colour:

they lie spread upon the ground about a third part of their length, and rise irregularly up the rest.

The leaves are very small, and very numerous: they stand thick, and perfectly irregularly upon the stalks, and are of a bluish green: they have no footstalks, and they are undivided at the edges, narrow, and pointed at the ends.

The flowers stand in long and thick spikes at the tops of the stalks and branches, and are of a deep purple: they are small, but very pretty; sometimes they are paler and reder, sometimes perfectly blue; but their most constant and natural colour is purple.

The seed-vessels are small, and the seeds are very small and black.

It is a native of Spain and of some parts of Germany; and flowers in August. It is mostly found on hills near springs.

C. Bauhine calls it *Linaria cerulea repens*. Others, *Linaria purpurea*, and *Oxyris purpureo cerulea repens*.

4. Stellated Toadflax.

Stellatis foliis stellatis. *Pl. 16. 11*

The root is very slender, divided, and furnished with small fibres.

The stalks are slender, weak, and of a pale green, sometimes redish: they stand but weakly upright, and seldom are strait; and there generally lie several others about the root, which spread on the ground, and are fuller of leaves, though they bear no flowers.

The leaves are longish, narrow, undivided at the edges, pointed at the ends, and of a pale ash coloured green: they grow round the stalks, in the manner of those of the stellate plants, like the rowels of a spur, or the rays of a star, as they are commonly represented.

There are usually five principal leaves at a joint, and often some small ones from their bottoms.

Toward the tops of the principal stalks which bear the flowers they grow with less regularity, often singly, and sometimes they are in this part irregularly divided.

The flowers stand at the tops of the stalks in long, thick spikes: they are yellow, and like those of the common toadflax, only smaller.

The seed-vessel is large and round, the seeds are small and brown.

It is a native of Sicily, and flowers in July. Boccone calls it *Linaria sicula multicaulis molluginis folio*. Others, *Linaria foliis quinis*, or *Toadflax with leaves five at a joint*.

5. Purple-mouthed Toadflax.

Linaria flore abescente rictu purpureo. *Pl. 16. 12*

The root is long, slender, white, hard, and hung with numerous fibres.

The stalks are round, thick, firm, upright, but little branched, and two feet high.

The leaves are numerous, and stand irregularly on the stalk: they are long and narrow, resembling that

that of the common toadflax, but sharper at the point, and longer in proportion to their breadth: their colour is a fresh green, and they have no footstalks.

The flowers stand in spikes at the tops of the stalks, and they are large and beautiful: they are whitish, except the opening, which is of a beautiful purple.

It is a native of Italy, and flowers in July.

C. Bauhine calls it *Linaria pallida rictu purpureo*. Dillenius, and others, *Linaria flore albicante*.

6. Indented-leaved Toadflax.

Linaria foliis dentatis. *Pl. 16. 13*

The root is long, and furnished with many fibres.

The first leaves are large; they rise in a thick tuft, and they remain when the stalk is risen, which is the case of few others of the toadflax kind.

They are long, broad, of a beautiful green, and have no footstalks: they are narrowest at the base, broadest toward the end, and indented at the edges.

The stalk rises in the centre of these, and is round, firm, upright, and a foot and half high: it is of a pale green, and sometimes branched.

The leaves stand irregularly on it, and are not so numerous as on most of the others: they are long and narrow, and they have no footstalks: those toward the bottom of the stalk are like the radical leaves, but narrower and more deeply indented; those higher up are much deeper divided, and toward the top of the stalk they consist only of two side-divisions and a long point.

The flowers stand in slender spikes at the tops of the branches: they are small, and of a deeper or paler blue, and often white.

The seed-vessels are large and round.

It is a native of Italy, and flowers in June.

C. Bauhine calls it *Linaria bellidis folio*. Others, *Linaria odorata*, and *Oxyris odorata purpurea*, or *Linaria odorata purpurea*.

7. Little, blue Toadflax.

Linaria pusilla cerulea. *Pl. 16. 14*

The root is small and slender, and has but few fibres.

The first leaves are pinnated, small, and beautiful: they are not very numerous: they stand on long footstalks, and each consists of about three pairs of pinnae, which are small, oval, and not at all indented.

The stalks are slender, erect, and six or eight inches high: they are not at all branched, and are of a pale yellowish green.

The leaves on them are few, and stand alternately: they are long, narrow, sharp-pointed, not at all indented at the edges, and of a pale green: they have no footstalks, and they grow more pointing upwards than those of the generality of the other species.

The flowers stand in spikes at the tops of the stalks, and are large and blue.

The seed-vessel is small and round; and the seeds are large and blackish.

It is a native of the south of France, and flowers in May.

Lobel calls it *Linaria annua purpureo cerulea*. Others, *Linaria minor cerulea*.

8. Blue trifoliate Toadflax.

Linaria trifolia cerulea. *Pl. 16. 15*

This is a very elegant little plant, and different from the larger trifoliate kind, not only in the colour of the flowers, but in the whole face and aspect.

The root is long, slender, crooked, hard, and hung with a few fibres.

The stalks are numerous, weak, and about eight or ten inches high.

The leaves are broad and short on the lower part of the stalk, and somewhat longer and narrower upwards: they stand by threes, and have no footstalks: their colour is a pale green, and they are not at all indented at the edges.

The flowers stand in thick, short spikes at the tops of the stalks, and are small, and of a beautiful blue.

The seed-vessels are large and roundish.

The seeds are small and black.

It is a native of Italy, and flowers early in spring.

C. Bauhine calls it *Linaria tryphylla cerulea*. Columna, *Linaria cerulea apula*. We, *Blue trifoliate toadflax*.

GENUS III.

SNAPDRAGON.

ANTIRRHINUM.

THE flower consists of a single petal, and has the labiated shape: it is formed into a tube, two lips and a palate, and it has no spur. The upper lip is divided into two parts, and turned back at the edges: the lower lip is divided into three parts; and the palate is large, and shuts up the space between the two lips. The cup is formed of a single leaf, divided into five parts, and remains when the flower is fallen: the seed vessel is a single capsule, of an irregular form, resembling in some degree the head of a calf, whence the plant has an English name, *calf's snout*; and it opens obliquely when the seeds are ripe.

Linnaeus places this among his *didynamia angiospermia*; there being two longer and two shorter threads in the flower; and the seeds being contained in a capsule.

He makes this and the *linaria* the same genus, as before observed; but the distinction, in the want of the spur of the flower, and the peculiar shape of the seed-vessel, is evident.

It is singular, that a structure and form in the capsule of this plant, which could strike the common observer so strongly as to obtain a peculiar name, expressing an imaginary resemblance of the head of an animal, should not have appeared to this curious and nice observer of the most minute differences, a mark sufficient for a generical distinction.

DIVISION I. BRITISH SPECIES.

Common, small Snapdragon.

Antirrhinum vulgare minus. *Pl. Herb.*

The root is long, slender, white, crooked, hard, and furnished with a few fibres.

The first leaves are long and narrow: they rise in a small tuft, and have no footstalks: they are undivided at the edges, of a pale yellowish green, and quickly fade when the stalk rises.

The stalk is round, branched, eight or ten inches high, and of a pale green colour.

The leaves stand irregularly, and are not very numerous: they have no footstalks, and they are oblong, narrow, and of a pale green.

The flowers rise from the bosoms of the leaves

all the way up the stalks: they are small, and of a mixed colour, part red, and part whitish.

The seed-vessel is large; and, to a fanciful imagination, may easily be supposed to represent the head of a calf.

It is common in cornfields, especially where the soil is poor and sandy: It flowers in July.

C. Bauhine calls it *Antirrhinum arvense minus*.

It is the only species of *snapper* we have properly wild in England. We frequently see the great purple *snapper* upon walls; but that is owing to seeds flying up with the wind out of gardens: for it grows naturally in warmer climates.

This small *snapper* possesses the virtues of toadflax, but in a very inferior degree.

DIVISION II. FOREIGN SPECIES.

1. Great purple Snapdragon.

Antirrhinum purpureum majus. *Pl. Herb.*

The root consists of a great tuft of fibres, rising from a small head.

The stalks are numerous, round, smooth, firm, upright, and two foot and a half high; sometimes they are branched, sometimes single.

The leaves are numerous and large: they are of a pale green, and are long and broad, not at all divided or indented at the edges, and of a fleshy, thick substance.

The flowers grow in long, loose spikes at the tops of the stalks and branches: they are very large, and of a beautiful red, sometimes white, and have the space between the two lips perfectly filled up by a prominent palate.

The seed-vessel is large, and the seeds are numerous and small.

It is a native of the south of France. The flowers, in the wild state, vary in colour from the deepest purple to the palest flesh colour, and even to white.

J. Bauhine calls it *Antirrhinum vulgare*. C. Bauhine, *Antirrhinum majus alterum folio longiore*. Others, *Antirrhinum purpureum*.

2. Great-flowered yellow Snapdragon.

Antirrhinum flore magno flavo. *Pl. Herb.*

The root is long and large, divided into many parts, and furnished with a great quantity of fibres.

The stalks are numerous, round, thick, firm, upright, and a yard high; sometimes branched, but more usually single.

The leaves are large, of a pale green, and hairy: they are broader in proportion to their length than in the former species, and have footstalks.

The flowers stand at the top of the stalk in a

thick, short spike, and are very large, and of a beautiful yellow.

The seed-vessel is large, and the seeds are small and round.

It is a native of the south of France, and flowers in June.

C. Bauhine calls it *Antirrhinum luteo flore*. Camerarius, *Antirrhinum flore luteo majore*. Linnaeus sets this down only as a variety of the preceding species; but he errs in this. If the colour of the flower were the only difference, we should agree with him in making it no more than a variety, but the leaves differ as much as the rest of the plant, and the extraordinary bigness of the flower is an additional circumstance: this difference of size would not be regarded in a flower, singly as a mark of a different species, any more than a variation in colour; but when other circumstances establish the distinction these support it.

3. Variegated-flowered Snapdragon.

Antirrhinum floribus variegatis. *Pl. Herb.*

The root is small, crooked, and woody.

The stalks are numerous, round, slender, and a foot and half high: they are seldom branched, and are of a pale whitish green.

The leaves stand irregularly, and have no footstalks: they are long, narrow, smooth, and of a pale green, not at all indented at the edges, sharp-pointed, and more like the leaves of common toadflax than any of the *snappers*.

The flowers grow all the way up the stalks, rising from the bosoms of the leaves; and they are placed on longish, slender footstalks: they are very beautifully coloured; the body of the flower being of a snow white, and the edges of a gold yellow.

It is a native of Italy, and flowers in July.

Dillenius calls it *Antirrhinum flore albo oris luteis*.

All these *snappers* agree in virtues with our

common wild kind, operating by stool and urine; but, the toadflax possessing their virtues in a superior degree, they have not come into use any where in medicine.

GENUS IV.

FLUELLIN.

ELATINE.

THE flower is small: it consists of a single petal, and is of the labiated kind: it is formed of a tube, with its spur, two lips, and a palate between them.

The cup is divided into five parts: the seed-vessel is roundish; and, when ripe, splits regularly: the stalks are weak and procumbent, and the leaves broad and hairy.

This is one of the *didynamia angiospermia* of Linnaeus; the flower having two longer and two shorter threads, and the seeds being contained in a capsule.

This author does not allow *elatine* to be a distinct genus, but confounds this and the *linaria* under one common name and character, with the *antirrhinum*.

The difference between this plant and *linaria*, in flower and seed-vessel, is much less than between the *linaria* and *antirrhinum*; and, Mr. Ray, who separates those genera, and gives the characters by which they are distinguished, joins this to the *linaria*. However, as the *elatine* is sufficiently distinct in its form and manner of growing, and has its proper and ancient name, I have kept it separate. It has distinct virtues, as well as a particular appearance, and I shall always, on such occasions, when the flower or seed-vessel do not sufficiently distinguish the plant, have recourse to the stalks, leaves, or other obvious and essential parts, for the supporting the ancient and useful distinctions.

There are but two known species of this genus, and both are natives of Britain.

1. Round-leaved Fluellin.

Elatine folio subrotundo. *Pl. Herb.*

The root is small, white, divided, and furnished with numerous fibres.

The first leaves are moderately large, and nearly round, only terminating in a kind of point: they stand on long, slender, hairy footstalks, and are soft to the touch, and of a pale greyish green.

The stalks are numerous, slender, round, weak, and six or eight inches long.

They do not stand erect, but trail and hang upon the ground.

The leaves are small, and supported on slender footstalks: they are of a pale green, and hairy.

Those toward the bottom of the stalk are roundish, and resemble those from the root: those toward the top are narrower, and oblong.

The flowers are small, and of a mixt yellowish and dark purple colour: they resemble those of toadflax, and have a long spur.

The seed-vessel is small and roundish, and the seeds are very minute and brown.

We have it in cornfields, but it is not common.

It flowers in June.

C. Bauhine calls it *Elatine folio subrotundo*. Ray, *Linaria elatine dista folio subrotundo*. We call it *Female fluellin*.

2. Cornered-leaved fluellin.

Elatine folio acuminato. *Pl. Herb.*

The root is small and inconsiderable.

The first leaves are numerous, small, and placed on long footstalks: they are oblong, and somewhat of an arrow-headed shape, but that the corners do not bend backwards, but stand flat or forward.

The stalks are numerous, very slender and weak, and considerably branched: they are hairy, of a pale whitish green, eight or ten inches long, and lie upon the ground.

The leaves stand irregularly, and at considerable distances: they are large, hairy, of a very pale green, and cornered toward the base.

The flowers are small, and are of a mixt colour between yellowish and a deep purple: they are very pretty though small.

It is common in our cornfields, and flowers in July.

C. Bauhine calls it *Elatine folio acuminato in basi awiculato flore luteo*. Ray, *Linaria elatine dista folio acuminato*.

Fluellin is famous as a vulnerary.

The juice of it cleanses and heals old ulcers; and it has at all times been in esteem as a good inward medicine for internal bruises. The tops, beaten into a conserve, are the best way of taking it for this purpose; but at present they are not much used.

GENUS V.

CYMBALARIA.

THE flower consists of a single petal, and is of the labiated kind: it is formed into a tube, with a spur behind; two lips; and a palate closing the space between them.

The seed-vessel is small and round.

The stalks are procumbent or hanging, and the leaves are cornered and smooth. Linnæus places this among his *didynamia angiospermia*; the flower having four threads in it, two longer, and two shorter, and the seeds being contained in a capsule.

He does not allow it to be a distinct genus, but makes it, as well as all the *linaria* and *elatine*, species of *antirrhinum* or *snaydragon*.

The flower and seed-vessel of this genus agree with those of the *linaria*; but the manner of growth and form of the leaves are perfectly distinct: it has also an antient and received name, which I have therefore preserved, as there is sufficient distinction.

If general characters are to be taken solely from the flowers and seed-vessels of plants, this is a species of *linaria*, however different it be in the general form and aspect; but there are no laws, established on that head, on an inviolable authority: if the leaves and other parts of plants may, when there is occasion, be taken into the general character, this is a perfectly distinct genus.

Nothing tends more to perplex the student than multiplication of species under the same general name: on the other hand, nothing more facilitates the study than a sufficient number of genera. I write to make the science familiar.

There is but one known species of this genus, and that is a native of Britain, though not very common.

Ivy-leaved Cymbalaria.

Cymbalaria foliis bederæ.

The root is composed of a multitude of fibres, rising from a small head.

The first leaves are large, short, broad, and cornered in two or three parts near the base; each of these corners, and the main body of the leaf, also terminate in sharp points: the whole leaf is of a deep green colour and glossy surface, and stands on a slender purplish footstalk.

The stalks are numerous and weak: they lie upon the ground, or upon the surface of a wall: they are a foot or more in length, not much branched, and are of a deep purplish colour.

The leaves stand irregularly on them, and have long, slender footstalks.

They are broad, cornered, and sharp-pointed, and are of a smooth surface, and deep, glossy green.

The flowers are very numerous and small:

they rise from the bosoms of the leaves all the way up the stalk, and are supported on long, slender pedicles: they resemble those of fluellin in shape, but are of a uniform pale red colour.

The seed-vessel is small and roundish: the seeds are numerous and black.

It is a native of our northern counties, and flowers in June. We see it wild on the walls of the Thames about Battersea, and on the walls of the apothecaries physick garden in Chelsea; but in both these places it has doubtless risen from seeds or parts of the plant thrown out from that or from some other garden.

C. Bauhine calls it *Cymbalaria*. Others, *Linaria bederæ* *folia glabra*.

It is cooling and astringent.

A conserve made of the leaves is good in the overflowing of the menses, in spitting of blood, in diarrhæas with sharp and bloody stools, and in the fluor albus.

GENUS VI.

FIGWORT.

SCROPHULARIA.

THE flower consists of a single petal, and is of an irregular figure, somewhat approaching to the labiated kind, and open: it is formed into a large, rounded tube, and a very small edge: the edge is divided into five segments; two stand uppermost, and are large; two stand side-ways, and spread open; and the fifth is undermost, and turns back.

The cup is divided into five parts; and the seed-vessel is roundish.

Linnæus places this among his *didynamia angiospermia*; the threads in each flower being four, two longer, and two shorter; and the seeds contained in a capsule.

DIVISION I. BRITISH SPECIES.

1. Common Figwort.

Scrophularia vulgaris.

The root is long and thick, and has a great quantity of small, tuberous pieces growing to it.

The stalk is square, firm, upright, and three foot high: it is not much branched, and is usually of a brown colour.

The leaves stand in pairs, and are large and beautiful: they have long footstalks, and are broad, oblong, and of a deep green colour, and very frequently brown, as is also the stalk: they

are broadest toward the base, sharp at the point, and indented at the edges.

The flowers stand at the tops of the stalk and branches, and are small, and of a deep dusky colour, with a mixture of greenish: they open wide at the mouth, and shew the buttons on the tops of the threads, which are of a deep yellow.

The seed-vessel is large, rounded, and sharp at the top.

The seeds are numerous and small.

It is common in woods, and in damp, shady places.

It flowers in July.

The whole plant has a strong and disagreeable smell, especially when in flower.

C. Bauhine calls it *Scrophularia nodosa fetida*, from the tuberous knots about its root, and its strong smell. Others, *Scrophularia vulgaris*.

It is famous as a remedy for the evil: the method is to take a strong decoction of the roots daily for a great length of time. These long and tedious cures are less certainly to be judged of than those performed more speedily; but there seems great authority to believe that this is a powerful and excellent medicine.

In some places there is a custom of brewing drink with some of this herb among it; and this root is celebrated for its virtues against the scurvy. When fresh, it gives the beer a most disagreeable taste; but this is not much perceived when used dry.

It is famous also, both inwardly and outwardly, against the piles.

The singular form of the tuberous parts about the root led people to think of it as a remedy in this disorder, because they were supposed to resemble those swellings; and, experience has shewn, the plant has the virtues they imagined.

A strong decoction of the root is good against all foulnesses of the skin, the itch not excepted: it should be taken inwardly, and the parts washed with some of it also warm.

An ointment is made in some places of the leaves, boiled in lard, and used for the same purposes; but the decoction, or a putrice, made from the fresh root, boiled soft with bread and milk, will answer the purpose better.

2. Water figwort, called Water betony.

Scrophularia aquatica.

The root is composed of a great number of fibres.

The first leaves are large, broad, oblong, and bluntly indented: they rise in a little tuft, and each has its separate long footstalk: they have some resemblance of the leaves of wood betony; they are vastly larger, but from this the plant has been commonly called *water betony*.

The stalk is thick, firm, upright, square, hollow, and three foot high: it is also edged with a kind of wings, running from the footstalks of the leaves, and is usually of a brown colour.

The leaves stand in pairs, and they have long footstalks.

They resemble those from the root, and are of a pale green colour: they are oblong, bluntly indented, and terminate in a rounded end; and

sometimes there grow a couple of smaller leaves on the footstalk below their bases.

The flowers are small, and of a deep purple, and have yellow buttons to their four threads within.

The seed-vessel is large and rounded; and the seeds are small and brown.

It is common by ditch sides; and flowers in July.

C. Bauhine calls it *Scrophularia aquatica major*. J. Bauhine, *Scrophularia maxima radice fibrosa*. The common writers call it *Betonica aquatica*.

It is said to possess the same virtues with the former, but in a less degree.

3. Small-leaved Figwort.

Scrophularia foliis minoribus.

The root is long, thick, and full of little tuberous lumps: it runs obliquely under the surface, like that of the *common figwort*, and is of a whitish colour, with a tinge of redish.

The stalk is firm, square, of a yellowish green, and two foot high.

The leaves stand in pairs: they are broad and short, lightly hairy, and indented sharply at the edges: they are thick, firm, and of a pale green.

The flowers stand at the tops of the stalks, and are large, and of a deep dusky colour.

The seed-vessel is large and round; and the seeds are small, very numerous, and brown.

It is found on our western coasts; and flowers in August.

Ray calls it *Scrophularia scorodoniae folio*, from its leaves having some resemblance of those of wood sage.

4. Green-flowered Figwort.

Scrophularia floribus virescentibus.

The root is large, thick, long, and full of tuberous knobs: it runs obliquely under the surface, and is of a whitish colour.

The stalk is single, firm, upright, square, of a pale green colour, and two foot and a half high.

The leaves are large, and stand in pairs: they have long footstalks, and are broadest at the base, sharp at the point, and indented at the edges.

The flowers are small, and of a greenish colour, with four yellow buttons on the threads in the centre.

The seed-vessels are large and roundish.

It is found in Oxfordshire and the adjacent counties; and flowers in June.

Ray calls it *Scrophularia major foliis caulibus, et floribus viridibus*.

DIVISION II. FOREIGN SPECIES.

1. Yellow-flowered Figwort.

Scrophularia flore luteo.

The root is long and thick: it runs obliquely under the surface, and has numerous large fibres; but none of those fleshy tubercles that grow to the common kind.

The first leaves are large and hairy; eight or ten of them rise from the root, and they are supported on long, hairy footstalks: they are broad and short, of a heart fashioned shape, deeply serrated, and of a dusky green.

The stalk is square, firm, erect, and two feet high; and is of a brownish green, and hairy.

The

The leaves stand usually in pairs, but sometimes three rise from the same point.

They are of a heart-fashioned shape, short and broad, and dented round the edges.

The flowers stand several together on short footstalks rising from the bosoms of the leaves; and they are small and yellow.

The seed-vessel is large and roundish; and the seeds are numerous and small.

It is a native of Italy, and flowers in June.

C. Bauhine calls it *Scrophularia flore luteo*. Clusius makes it a kind of dead nettle: he calls it *Lamium pannonicum secundum*.

2. Jagged yellow Figwort.

Scrophularia lutea laciniata. *May. 10*

The root is long, thick, oblique, and furnished with numerous fibres.

The leaves that rise first from it are very large, and deeply divided: they stand on long footstalks, and are of a beautiful green.

The stalk is firm, erect, brown, and two feet and a half high.

The leaves stand in pairs, and are large, and deeply serrated: they have frequently two appendages or small leaves growing on their footstalk near the base, in the manner of those of the common water figwort.

Those toward the bottom of the stalk approach more to the divisions of those from the root; and those near the top are longer and narrower, and very deeply and sharply jagged.

The flowers are large and yellow, and stand several together on footstalks rising from the bosoms of the leaves.

The seed-vessels are large and roundish; and the seeds are numerous and small.

It is a native of Spain and Portugal, and flowers in July.

C. Bauhine calls it *Scrophularia foliis laciniatis*. Others, *Scrophularia sambuci folio flore magno*.

4. Nettle-leaved Figwort.

Scrophularia urticae folio. *May. 10*

The root is long and thick, and has many large fibres.

The stalk is square, firm, and lightly hairy, very much branched, and two feet high.

The leaves stand in pairs, and have long footstalks: they are large, and of a shining green, broad at the base, narrower to the point, and indented sharply all the way on the edges.

The flowers are placed all the way up the stalk and branches, and have long footstalks; each of which splits toward the top, and holds two flowers: they are large, and of a bright red.

The seed-vessel is large, roundish, and pointed; and the seeds are numerous and small.

It is a native of Italy, and flowers in May.

C. Bauhine calls it *Scrophularia urticae folio*; and most others have followed him.

5. Pinnated Figwort.

Scrophularia foliis pinnatis. *May. 10*

The root is long, thick, and hung with many large fibres.

The leaves that rise first from it are long, narrow, and deeply divided at the edges, the cuts going almost to the middle rib: they have no footstalks, and are of a shining, deep green.

The stalks are numerous, firm, upright, and of a deep brown: they are scarce at all branched, and are a foot and half high.

The leaves stand on them in pairs, and are deeply divided; so that they appear pinnated: each seems composed of about three pair of pinnae, with an odd one at the end, and these are deeply jagged.

The flowers stand on the tops of the stalks, and are very numerous, small, and of a dark purple colour.

The seed-vessels are large, roundish, and pointed; and the seeds are small and brown.

It is a native of Italy and Germany; and flowers in July.

C. Bauhine calls it *Scrophularia ruta canina dicta*. The common writers call it *Ruta canina*, and Dogs rue.

All these species of figwort have the same kind of taste, and most of them the same smell with our common wild kind; and they are celebrated for the same virtues. They are accounted great medicines against scorbutick and other foulnesses; and pultices of their leaves are made for the piles. The common wild kind of our woods seems to have more virtue than any of them, though natives of warmer climates.

GENUS VII

FOXGLOVE.

DIGITALIS.

THE flower consists of a single petal, which is long and hollow like the finger of a glove, and is divided into four segments at the edge, remotely approaching to the labiated form; the upper lip is broad and divided, and the under one larger: the cup is divided into five segments; and the seed-vessel is large, of an oval form, and pointed at the top.

Linnaeus places this among his *didynamia angiospermia*; the threads in each flower being four, two of which are longer and two shorter, and the seeds contained in a capsule.

This distinction of that celebrated author comprises so many of the plants properly of our present class, that it shews how nature is similar, even in the smallest parts, in plants allied to one another: but this is all that should have been inferred from the curious and just observation of that writer, of the threads in each flower being four, and two of them longer and two shorter: when he carried this observation into a larger use, and made it the foundation of a class, it failed him, and misled his readers.

We see, that in bringing it to serve that purpose, the class formed upon it comprehends the verticillate plants, and these together; and as it in that joins genera the most distinct, so it in other cases separates the *pinguicula* and others, which are naturally allied to the rest, and here brought together.

The world is indebted in the highest degree to that most eminent writer for his observations; and they should be always remembered, though used in a more limited degree.

DIVISION I. BRITISH SPECIES.

Common Foxglove.

Digitalis purpurea. *May. 11*

The root is composed of a multitude of thick and tough fibres; of a pale green colour, and bitter taste.

The first leaves are very large, oblong, narrow, of a whitish colour, and slightly indented at the edges.

The stalk rises in the centre of these, and is round, thick, firm, upright, whitish, or greyish, and four feet high.

The leaves on it are numerous, and stand irregularly: they are long, narrow, large, of a whitish green, and indented slightly on the edges.

The flowers grow in a kind of spike on the top of the stalk, and they usually hang all on one side: they are large, and of a beautiful red, with some spots of white and some little touches of black, and with yellow buttons on the four threads within.

The seed-vessel is large and oval; and the seeds are numerous and small.

It is common in barren pastures and on dry banks, and flowers in August.

C. Bauhine calls it *Digitalis purpurea folio aspero*. Others, *Digitalis vulgaris*, and *Digitalis purpurea vulgaris*.

It is a plant possessed of very considerable virtues; but they are more known among the country people than in the shops.

It is a powerful emetick, and, in a smaller

dose, a very brisk purge: often it works both ways, and sometimes with a very hurtful violence; but this is owing to ill management: many excellent medicines, as they are found to be, in the hands of skilful persons, would fall under this censure if given in the same random manner.

The people in the west of England use it most. They boil a handful of the leaves, or three or four of the clusters of roots, in ale, and give it according to the patient's strength. They cure quartan agues, and many other obstinate complaints with it.

We have also accounts of epileptick fits of long continuance being cured by it; but the operation in this way is too rough for any but those who are very hardy.

It would be right to try the root, dried and powdered, in a moderate dose, for it is very improper that a medicine of so much power should be disregarded at home, while we send to the remotest parts of the earth for others of the same qualities.

An ointment made of the leaves is recommended for cutaneous foulnesses, and in many places they make an ointment also of the flowers in May butter, which is greatly recommended in strumous cases.

The Italians are so fond of it on these occasions that they have a proverb, which say, *foxglove cures all wounds*. Many plants of less virtue are more celebrated; and there is none deserves better a fair trial.

DIVISION II. FOREIGN SPECIES.

1. Ferrugineous Foxglove.

Digitalis flore ferruginea. *May. 11*

The root is composed of numerous thick fibres.

The first leaves are long and large; they have thick ribs, and are of a pale green.

The stalk is round, robust, upright, and four feet high.

The leaves on it are numerous, and placed irregularly: they are long, narrow, without footstalks, of a pale green, and very lightly hairy.

The flowers are extremely numerous: they stand in long spikes at the tops of the stalks and branches; and are of the shape of the common foxglove flowers, but that they have a very long under lip: their colour is a ferrugineous, or brownish red, and they have streaks of yellow, and are in part hairy.

The seed-vessel is small, and the seeds are small and brown.

It is a native of the east. We received the seeds from Constantinople, but it is common in our gardens.

NO 12.

It flowers in August.

C. Bauhine calls it *Digitalis angustifolia flore ferruginea*. Others, *Digitalis ferruginea*.

2. Yellow Foxglove.

Digitalis flore minore. *May. 11*

The root is very long and thick, and has a vast quantity of fibres.

The first leaves rise in a great cluster, and are long and broad; of a bright green on the upper side, but paler and a little inclined to hairyness below: they have no footstalks, and they are narrow toward the base, and broadest near the end.

The stalk is round, upright, firm, and three feet high.

The leaves on it are numerous, and grow irregularly: they are long, and not very broad, and they have no footstalks.

The flowers stand in a long spike on the top of the stalk, and are of a pale greenish yellow.

The seed-vessel is large, roundish, and pointed at the top.

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It is a native of Spain and Italy, and flowers in July.

C. Bauhine calls it *Digitalis major lutea flore pallida parva flore.*

3. Great-flowered yellow Foxglove.

Digitalis lutea magno flore. *Alc. 17. 14*

The root is very large, and runs obliquely under the surface, sending up from various parts clusters of leaves, and numerous stalks.

The leaves that rise from the root are broad, oblong, and of a pale green, and a little dented at the edge.

The stalks are round, striated, of a pale colour, firm, upright, and three feet high.

The leaves are numerous upon them, and stand irregularly, but not so confusedly as on some of the other species: they are broad, oblong and without footstalks.

The flowers stand in a kind of spike at the top of the stalk; and they usually hang all one way, as in the common foxglove: they are large and yellow, and are of the shape of those of the common kind: their colour is pale on the outside and deep within, and is sometimes variegated.

It is a native of Germany, and flowers in August.

C. Bauhine calls it *Digitalis lutea magno flore.*
J. Bauhine *Digitalis lutea flore majore folio latiore.*

4. Perfoliate Foxglove.

Digitalis perfoliata. *Alc. 17. 15*

The root is large and irregularly shaped, and sends out many long and thick fibres.

The stalk is round, firm, upright, and two feet and a half high, of a pale green, and scarce at all branched.

The leaves stand in pairs, and the stalk in a manner runs through them: they are large and long; broadest at the base, and smaller all the

way to the point: they are smooth, perfectly undivided at the edges, and of a bright green.

The flowers stand at the top of the stalk, and on long footstalks rising from the bosoms of the upper leaves: they are large, and extremely beautiful: their colour is a deep violet purple: they are hollow and long, in the manner of the common foxglove; but they are divided into five short and round segments at the edge.

The seed-vessel is oval, and terminates in a point: the seeds are small and brown.

It is a native of Virginia, and flowers in July. Morison calls it *Digitalis perfoliata flore violacea.* Linnæus calls this *Mimulus*, making it another genus; but that is a needless distinction.

5. Shrubby Foxglove.

Digitalis frutescens. *Alc. 17. 16*

The root spreads under the surface, and sends up shoots in various places.

The stalks are woody, and covered with a reddish brown bark.

The leaves stand irregularly and in considerable numbers upon them; and are very beautiful: they have no footstalks, but grow to the main stalk by a broad, hollow base: they are long, narrow, of a bright green, and beautifully indented on the edges: they are broadest toward the middle, and terminate in a sharp point.

The flowers stand at the tops of the stalks in very long spikes: they are of a beautiful gold yellow, and have two lips; and the four threads, with the buttons, very apparent in them.

The seed-vessel is large and oval; and the seeds are numerous, small, and brown.

It is a native of the Canaries, and flowers in May.

Cliffort calls it *Gesneria foliis lanceolatis serratis pedunculo terminati laxo spicato.* Commeline, *Digitalis acanthoides canariensis flore aureo frutescens.*

GENUS VIII.

HEDGE HYSSOP.

GRATIOLA.

THE flower consists of a single petal, approaching to the labiated shape: the tube is angulated: the edge divided into four parts: the upper segment is broader than the others, and turns back; the others are equal: the cup is divided into five segments; and the seed-vessel is oval, and terminates in a point.

Linnæus places this among his *diandria monogynia*; there being two fertile threads in the flower, and the filament from the rudiment of the seed-vessel being single.

There is, however, some constraint upon his system in this instance: the general character of his class of the *diandria* is, that there are only two stamina in the flower, with the rudiment of the fruit; but in this plant there are really five stamina in each flower: three of them have no buttons on the top: these, therefore, he calls sterile, and accounts as nothing.

Many have been puzzled to know where to place this plant.

We see how Linnæus disposes it; he separates it many classes from the rest of the genera here treated of, to which it evidently belongs; having a flower consisting of a single petal, and the seeds contained in a single capsule. It is so nearly allied to the foxglove that some have called it by that name, but erroneously; for, though allied, it is a distinct genus. Its proper place, in an arrangement of the plants to which it is of kin, is next to the foxglove, which it most resembles.

* Stamina duo in flore hermaphrodito. *Syst. Nat.*

DIVISION

DIVISION I. BRITISH SPECIES.

Narrow-leaved Hedge Hyssop.

Gratiola angustifolia. *Alc. 17. 17*

The root is long, slender, and white: it spreads under the surface, and sends up numerous shoots.

The stalk is round, thick, upright, and eight or ten inches high: it is not at all branched, and is usually of a reddish colour near the ground, and of a pale green elsewhere.

The leaves stand in pairs: they have no footstalks: they are oblong, serrated at the edges, and sharp pointed.

The flowers stand singly on long, slender footstalks rising from the bosoms of the leaves; and are of a mixed white and yellow colour.

The seed-vessel is large, oval, and pointed; and the seeds are numerous, small, and dusky.

It is a native of the north of Scotland, but not common. It grows in places where waters have stagnated in winter.

It flowers in June.

C. Bauhine calls it *Gratiola centauroides.* Others, *Gratiola vulgaris.*

It is but lately we have the notice of its being a native of Britain; nor have we any other species of it: that which is called the smaller hedge hyssop, *Salicaria hyssopifolia* by C. Bauhine, and by less accurate writers *gratiola angustifolia*, is properly a species of *salicaria*, not of this plant.

There are also two other plants called by the name *gratiola*, which are species of *cassida*, and will be found under that head.

This is such a source of error to the young student, that there cannot be too much care in avoiding it: he is to know, that till this proper

gratiola, which is here described, was found in Scotland, it was not known that any species of that genus was native of Britain; and, he must observe, that the plants named by Mr. Ray with these synonyma of *gratiola* are neither of them of that kind; nor so understood by Mr. Ray, who has placed them severally in their proper genera, though he has added the different names by which they have been called by other writers, and these among them.

Hedge hyssop, though not known before wild in Britain, is very common in France, and is greatly esteemed for its medicinal virtues.

It approaches to the nature of the foxglove in qualities as well as form. Taken in a moderate dose, it operates very briskly by stool; and, in a somewhat larger, by vomit also; and in this manner, for constitutions that can bear it, carries off watery humours and dislodges obstructing matter in a surprising manner.

The juice is given in dropies: a strong decoction in the jaundice; and in slighter cases an infusion. Either way it is bitter, and disagreeable in the highest degree, to the taste; but its virtues are so well known among the French peasants that it is called there *poor men's physic*.

The root, dried and powdered, is given in the sciatica, and with success. In small doses it is also excellent against worms: its extreme bitter taste destroys them, and by its purging quality it takes off all that matter from the coats of the intestines which used to harbour and serve for lodging of them.

DIVISION II. FOREIGN SPECIES.

Blunt-leaved Hedge Hyssop.

Gratiola foliis obtusis.

The root is slender and creeping: it is white, tough, furnished with many fibres, and of a bitter taste.

The stalk is round, upright, and of a pale green; often reddish toward the ground, as also at the insertions of the leaves.

The leaves stand in pairs, and are oblong, narrow, and of a dead green: they are very slightly and irregularly notched at the edges, and obtuse at the ends.

The flowers are large.

The seed-vessels are also large, and the seeds are small and brown.

It is a native of many parts of North America, and flowers from May to October.

Gronovius calls it *Gratiola foliis lanceolatis obtusis subdentatis.*

It is very much of the same taste with the common kind, and probably possesses the same virtues. The Indians extol it against poisons.

GENUS IX.

COXCOMB.

PEDICULARIS.

THE flower consists of a single petal, and approaches to the labiated kind: it is formed into a tube, and two lips: the tube is crooked, and the lips differ from one another greatly: the upper lip is narrow, compressed, dented, and galeated; the lower lip is divided into three segments, of which the middle one is the narrowest: the cup is roundish and swelled, and is divided into five segments at the rim: the seed-vessel is roundish, and pointed at the top.

Linnæus

Linnaeus places this among the *didynamia angiospermia*; the threads in each flower being four, two longer, and two shorter, and the seeds contained in a capsule.

We confusedly call two genera in English by the name of *rattle*, distinguishing them only by epithets taken from the colour of the flower into *red* and *yellow rattle*: this is one of them, the following genus the other: they are also called *coxcomb*, and *lousewort*; but both these names are given in common to the two genera, and have been used to the same distinction by an epithet expressing the colour of the flower: we call them *red coxcomb*, and *yellow coxcomb*, as well as *rattle*; and some, though that be not so universal, *red* and *yellow lousewort*; this disagreeable name is more confined to *red*, but not sufficiently to make it a general term distinct from the other.

It will be seen there is a *yellow-flowered pedicularis*; therefore another name is needful, and we call this *coxcomb*. It will be proper for the student either to use this constantly, or always to call them by their Latin names; those being single and distinct words.

DIVISION I. BRITISH SPECIES.

1. Common red Coxcomb.

Pedicularis rubra vulgaris. *Mc. 10. 1*

The root is long, thick, and divided into several parts: it is white and bitter.

The first leaves are large, broad, indented at the edges, and pointed at the ends: they are so unlike those that follow that few would know the plant in this state.

The stalks are thick, green, weak, and not very upright: they are eight or ten inches long, and but little branched.

The leaves stand on them in great numbers, and are of a kind of pinnated form, each composed of several pairs of smaller, set on a middle rib, with an odd one at the end; and some of the lowest are often doubly pinnated.

The flowers stand in a considerable number on the tops of the stalks: they are large, of a bright red, and have a great hollow cup: sometimes they are white: their cups are long, angulated, and smooth.

The seed-vessel is large and roundish; and the seeds are numerous and small.

It is common in damp places on heaths, and flowers in July.

C. Bauhine calls it *Pedicularis pratensis purpurea*. Dodonæus, *Fistularia*. Others, *Pedicularis rubra vulgaris*.

DIVISION II. FOREIGN SPECIES.

Yellow Coxcomb.

Pedicularis foliis pinnatis lutea. *Mc. 10. 2*

The root is composed of a multitude of very large and thick fibres, and is whitish, tough, and bitter.

The first leaves are large, long, and divided deeply to the rib in a pinnated manner: they seem composed of many pairs of lesser ones, with an odd one at the end; but, nearer examined, these are only segments; and they are notched deeply at the edges, and pointed at the ends.

The stalk is round, thick, hollow, redish, and two foot high.

The leaves stand irregularly on it, and are, like those from the root, divided deeply in the pinnated manner, and sometimes they are com-

2. Tall red Coxcomb.

Pedicularis rubra elatior.

The root is thick, large, and spreading, whitish, bitter, and full of fibres.

The first leaves are large, few in number, and not much divided.

The stalks are round, green, thick, robust, upright, and a foot and half high.

The leaves are large, deeply divided in the pinnated manner, and of a pale green, often redish.

The flowers are large, and usually red, but sometimes, as in the other species, they are white.

The cups are not so bloated as in the other species; and they are rough on the surface: usually they are divided only into two parts, instead of five, at the extremity; but this is uncertain.

The seed-vessel is large, and the seeds are small and brown.

It is not uncommon in wet places, and flowers in July.

Tragus calls it *Pedicularis campestris prior species*. Ray, *Pedicularis rubra elatior*.

The virtues of these plants are not certainly known; but our farmers have an opinion that sheep feeding on them become subject to vermin, whence the English name *lousewort*: whatever foundation there may be for this, it is an opinion as old as Tragus; and is not confined to Britain, for the Flemish have it as well as we.

poundly pinnated, or the segments themselves divided in the same pinnated manner.

The flowers stand in a tuft at the top of the stalk; and are large, and of a pale yellow, and sometimes white: they make a thick, short spike, in the manner of the orchis flowers, and the upper segment or galea is very crooked.

The seed-vessel is large, and the seeds very small and brown.

It is a native of Italy, and of many other parts of Europe; and flowers in June.

Authors have been greatly divided as to the genus to which it belonged, and have thence called it by various names.

Barrelier calls it *Alectorolophus montana flore luteo*. C. Bauhine, *Filipendula montana flore pediculari*. Others, *Filipendula montana*.

GENUS

GENUS X.

YELLOW RATTLE.

RHINANTHUS.

THE flower consists of a single petal, and approaches to the labiated kind: it is formed into a tube and two lips: the tube is strait: the lips are compressed at the base; and the upper one is flattened, and of the galeated shape: the under lip is flat, and divided into three segments, of which the middle one is the longest: the cup is roundish, swelled, as if blown up, and divided into four parts at the edge: the seed-vessel is rounded, and compressed or flattened; and the seeds also are flattened.

Linnaeus places this among the *didynamia angiospermia*; the filaments or threads in each flower being four, two of which are longer, and two shorter, and the seeds contained in a capsule.

We have observed that this genus and the *pedicularis* have been always called by the same English names. We have shewn the impropriety of this, by observing that the epithets of distinction taken from the colour of the flower are not sufficient for the separation of the two genera; there being one that is properly of the former, the flower of which is yellow: by the character of the present genus here given, it will appear that they are quite distinct: I have therefore retained the name *Rhinanthus*, as it is useful for the distinction, and appropriated the two English names distinctively, giving that of *coxcomb* only to the preceding genus, and that of *rattle* only to this.

DIVISION I. BRITISH SPECIES.

1. Common yellow Rattle.

Rhinanthus vulgaris. *Mc. 10. 3*

The root is short, slender, crooked, hard, and furnished with many fibres.

The stalk is round, firm, upright, of a yellowish green, a foot high, and branched toward the top.

The leaves stand in pairs: they are oblong, broad, and have no footstalks: they are broadest at the base, narrower to the end, sharply indented at the edges, and terminate in a point: their colour is a dusky green, and their substance firm.

The flowers are numerous, and have a singular appearance: they stand in long series up the tops of the stalks, and principally on one side: they have a great striated cup, like a bladder: the flower itself is small, and of a bright yellow.

The seed-vessel is large, rounded, and flattened; and the seeds are flat and brown.

It is common in pastures, and flowers in June.

C. Bauhine calls it *Pedicularis pratensis lutea seu crista galli*. Others, *Crista galli lutea*, and *Crista galli foemina*. We in English, *Yellow rattle*, or *Coxcomb*.

Those who call this the female, distinguish what they call another species under the name of the male, but it is only a variety: the prin-

DIVISION II. FOREIGN SPECIES.

Hairy yellow Rattle.

Rhinanthus foliis villosis.

This is a small but singular and pretty plant. The root is longish, crooked, slender, and full of fibres.

The stalk is round, slender, upright, of a redish colour, and eight inches high.

The leaves stand in pairs, at distance, pair from pair: they have no footstalks, and they are nar-

No 12.

cial difference is the stature; the male, as it is called, growing in a more favourable ground, and being taller.

2. Narrow-leaved yellow Rattle.

Rhinanthus foliis angustioribus.

The root is long, slender, crooked, and furnished with a multitude of fibres.

The stalk is round, firm, upright, and very much branched, and is usually of a redish colour.

The leaves are numerous: they stand in pairs, but at smaller distances by much than in the common kind: they are very narrow, and sharply dented at the edges; of a pale green, and not so broad at the base as in the other.

The flowers stand in a long series on the upper branches, and are beautifully variegated, though very small: the top of the flower is yellow, and the upper lip is purple.

The whole plant is two foot high, and very robust.

The seed-vessels are long and flat; and the seeds are also flat, but small.

It is frequent in pastures in the north of England; and flowers in August.

C. Bauhine calls it *Crista galli angustifolia montana*. Ray, *Pedicularis major angustifolia ramosissima flore minore luteo, labello purpureo*.

row, oblong, not at all indented at the edges, and a little hairy.

The flowers stand at the tops of the stalks, and have striated and swollen cups.

The seed-vessel is flattened, but of a rounded figure; and the seeds are large.

It is a native of Ceylon, and flowers in May.

Burman calls it *Thyslops zeylanicus tenellus praeceps*: but it is evidently a plant of this genus.

GENUS

G E N U S XI.

EYEBRIGHT.

EUPHRASIA.

THE flower consists of a single petal, and approaches very much to the labiated shape: it is formed into a tube and two lips; the tube is short and plain: the upper lip is hollow and indented; the lower lip is divided into three segments, and these are equal in size, and obtuse: the cup is composed of a single piece, divided into four unequal segments; and the seed-vessel is oblong, oval, and compressed.

Linnaeus places this among his *didynamia angiospermia*; the flowers having four threads, two longer, and two shorter; and the seeds being contained in a capsule.

DIVISION I. BRITISH SPECIES.

1. Common Eyebright.

Euphrasia vulgaris. *Pl. 10. 4*

The root is long, white, slender, and furnished with numerous fibres.

The stalk is round, firm, erect, of a deep green, very much branched, and eight inches high.

The leaves are placed in pairs, and they have no footstalks: they stand very thick, and they are short, broad, deeply serrated, and of a very dark green, but of a bright and fleshy surface.

The flowers are large, and white, variegated with a few dots: they stand in the bosoms of the leaves, principally toward the tops of the stalks, and are very pretty; their bright whiteness, and the deep green of the rest of the plant, making a pretty contrast to one another.

The seed-vessel is oblong, and the seeds are very small.

It is common in our hilly meadows, and flowers in August.

C. Bauhine calls it *Euphrasia officinarum*. Others, *Euphrasia vulgaris*, or, simply, *Euphrasia*.

Eyebright is famous against disorders of the eyes.

In common inflammations of the eyes the custom is to use the fresh expressed juice by way of a collyrium, washing them twice a day with it, and wearing a piece of silk over them.

In worse disorders the whole herb, dried and powdered, and taken for many months, half a dram twice a day, is recorded to have done great service. There are accounts that seem well attested of people restored to sight by it. The distilled water is recommended by some for the same purposes, but that has little virtue.

2. Purple Eyebright.

Euphrasia flore rubro. *Pl. 10. 5*

The root is short, crooked, woody, whitish, and furnished with a few fibres.

The stalk is round, firm, upright, of a purplish colour, considerably branched, and eight or ten inches high.

The leaves stand in pairs, and are very frequent upon the stalk, except toward the bottom, where for three inches it is generally naked: they are longish, narrow, sharply serrated at the

edges, and pointed at the ends: they have no footstalks, and are at first of a brownish green colour, and afterwards brownish or redish, with very little green: the whole plant, when it has stood some time, frequently becomes purple.

The flowers are small, and of a dusky red: they are very numerous, and stand in the bosoms of the leaves all the way up the stalk.

The seed-vessel is oblong, and larger at one end than the other: the seeds are very small and brown.

It is frequent in dry pastures, and on barren and heathy ground. It flowers in July.

C. Bauhine calls it *Euphrasia pratensis rubra*. J. Bauhine, *Euphrasia parva purpurea*; and the common writers, *Cratogeomom euphrasine*; supposing some resemblance in it to the cow-wheat, to be hereafter described: It is also called in English, *Eyebright cow-wheat*.

3. Short leaved Eyebright.

Euphrasia foliis brevibus.

The root is long, slender, and furnished with numerous fibres.

The stalk is round, upright, and hard, but brittle: it is very much branched, and eight or ten inches high, of a purplish colour usually, sometimes of a pale green, and a little hairy.

The leaves are placed in pairs, and have no footstalks: they are broad, short, and indented sharply at the edges: their colour is an ash or greyish green, but they have a glossy substance, like those of the common *eyebright*.

The flowers are small, and of a deep purple: they grow from the bosoms of the leaves all the way up the stalks from the middle to the top.

The seed-vessels are oblong, and largest at the base; and the seeds are large and whitish.

It is a native of our northern counties, but is not common.

C. Bauhine calls it *Teucrium alpinum coma purpureo cerulea*. Ray, *Euphrasia rubra, foliis brevibus obtusis*.

4. Great leaved Eyebright.

Euphrasia major latifolia. *Pl. 10. 10*

The root is long, slender, white, and furnished with a few fibres.

The stalk is round, upright, firm, and a foot high:

high: its colour is usually a pale green, sometimes redish; and it is lightly hairy, and very much branched.

The leaves grow irregularly: some toward the lower part of the stalk generally stand in pairs, but the greater part alternately: they have no footstalks: they are broad, oblong, large, of a dusky green, and rough surface; dented at the edges, and pointed at the ends.

The flowers rise singly from the bosoms of

the leaves all the way up to the top-part of the stalk; and they are large and yellow.

The seed-vessel is oblong, and the seeds are very small and redish.

It is a native of Cornwall, and of the island of Jersey; and flowers in July.

J. Bauhine calls it *Crista galli affinis planta Romana, seu Crista galli major Italica*. Ray, *Euphrasia major lutea latifolia palustris*.

DIVISION II. FOREIGN SPECIES.

1. Narrow-leaved yellow Eyebright.

Euphrasia angustifolia flava. *Pl. 10. 6*

The root is small, long, and furnished with a few fibres: it is whitish, woody, and crooked.

The stalk is angulated or ridged, and appears square: it is slender, but firm, upright, branched, and a foot and half high.

The leaves are long, and very narrow: they stand in pairs without footstalks, and are of a dusky green, dented at the edges and sharp-pointed.

The flowers are very numerous: they stand in long, close series all up the tops of the branches, and are small, and of a gold yellow.

The seed-vessel is oval, but oblong; and the seeds are small and whitish.

It is frequent in Italy and Spain; and flowers in August.

C. Bauhine calls it *Euphrasia pratensis lutea*. Columa, *Euphrasia lutea montana angustifolia altera*.

2. Eyebright, with three-pointed leaves.

Euphrasia foliis tricuspidatis. *Pl. 10. 7*

The root is very slender, white, longish, crooked, and furnished with numerous fibres.

The stalk is round, firm, redish, somewhat branched, and of a purplish colour.

The leaves stand alternately, and have no footstalks: they are very narrow; and undivided at the edges till they come toward the end, where they are broader than in any other part, and have two notches opposite to one another, which give the tip of the leaf a three-pointed appearance.

The flowers stand in the bosoms of the leaves all the way up the tops of the stalks: they are small, and of a whitish red.

The seed-vessels are oblong, and the seeds are small.

It is a native of Italy, and flowers in August. Linnaeus calls it *Euphrasia foliis linearibus tricuspidatis*.

3. Low purple Eyebright.

Euphrasia pumila flore rubro. *Pl. 10. 7*

This is a very small, but singular and pretty species.

The root is small, oblong, divided, and hung about with many fibres.

The stalk is angulated, short, redish, and somewhat hairy: it is seldom at all branched, and is about four inches high.

The leaves stand in pairs, and have no footstalks: they are short, broad, and very deeply indented, in such a manner that they resemble the fingered leaves of those plants which have them divided down to the base into narrow and long segments.

The flowers are large for the bigness of the plant, and purple.

The seed-vessels are large, and the seeds whitish.

It is a native of Italy, and flowers in May.

C. Bauhine calls it *Euphrasia pratensis latifolia Italica*. Columa, *Euphrasia latifolia pratensis*.

These several species agree in virtues with the common English kind, and are in the same degree of estimation there that ours is here.

This plant bruised and laid upon the eyes in cases of inflammations is a speedy remedy. They throw a large quantity of it into their wine as it is making, and keep it for old mens drinking, to preserve their sight. They also eat the young shoots and tops of the several species among their salading for the same purpose.

G E N U S XII.

COW-WHEAT.

MELAMPYRUM.

THE flower consists of a single petal, and approaches to the labiated shape: it is formed into a tube and two lips: the tube is long and crooked: the upper lip is galeated, flattened, and nipped at the top, and turns back at the edges: the lower lip is divided into three equal blunt segments, and has two eminences in the middle.

The cup is tubular, and lightly divided into four segments: the seed-vessel is oblong, flattened, and pointed at the top.

Linnaeus places this among the *didynamia angiospermia*; the threads in each flower being four; two longer, and two shorter: and the seeds contained in a capsule.

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DIVISION I. BRITISH SPECIES.

1. Common Cow-wheat.

Melampyrum vulgare. *Pl. 10. 11.*

The root is small, oblong, crooked, and white, and has a few fibres.

The stalk is slender, weak, angulated, but moderately upright, very much branched, and about a foot high.

The leaves stand in pairs, and have no footstalks.

Those toward the bottom of the stalk are oblong, somewhat broad, and deeply indented toward the base; those on the upper part of the plant are longer and narrower, and altogether plain.

The flowers are large and yellow: they grow in loose spikes at the tops of the stalks, bending one way.

The seed-vessel is oblong and hooked at the top: the seeds are large.

The whole plant is of a blackish colour.

It is common in woods, and flowers in June and July.

C. Bauhine calls it *Melampyrum luteum latifolium*. Others, *Crataegonum vulgare*.

2. Narrow-leaved Cow-wheat.

Melampyrum angustifolium. *Pl. 10. 11.*

The root is long, slender, white, crooked, and full of fibres.

The stalk is firm, slender, and of a purplish colour: it is erect, and not much branched.

The leaves stand in pairs, and they have no footstalks: they are placed at distances upon the stalk, and are very long and narrow; of a deep green, and not at all indented, but sharp at the point.

The flowers are large, and usually of a yellow colour; but in this there is a great deal of variation; we see them sometimes white, sometimes red, and sometimes of a mixed colour between all these.

They stand at the tops of the stalks in a kind of crested heads, or short, thick, square spikes.

The seed-vessel is oblong, and the seeds are very large.

It is common in the northern counties of England; and flowers in July.

C. Bauhine calls it *Melampyrum luteum angustifolium*. We in English, *Crested cow-wheat*.

There is a very pretty variety of this plant,

in which the flower is white, spotted with yellow. This has been described by some as a distinct species, but erroneously. It is common with us among the other.

3. Purple-headed Cow-wheat.

Melampyrum purpurascens coma. *Pl. 10. 11.*

The root is slender, woody, and furnished with a few fibres.

The stalk is slender, square, tolerably upright, of a purplish colour, somewhat branched, and about a foot high.

The leaves stand in pairs: they are oblong, and moderately broad, of a deep green, and dented sharply and deeply at the edges.

Those which grow at the tops of the stalks differ from the rest: they are short, broad, and of a deep red, which gives the tops of the plant a purple tinge, whence its name.

The flowers grow among these, and are large and beautiful: they are variegated with red and yellow.

The seed-vessel is large and oval: the seeds are few, large, and whitish.

It is found in the cornfields in Norfolk and some other counties; but it is not a common plant. It flowers in August.

C. Bauhine calls it *Melampyrum purpurascens coma*. J. Bauhine, *Triticum vaccinium*.

Cow-wheat is a useful plant for the fattening of cattle: in places where it is more common they use it for that purpose; and with us it would be very well worth the husbandman's while to try it among the great number of those plants brought from abroad, which are now so successfully cultivated in our fields; as saintfoine, chiches, lentils, and the like. This, being a native of England, would grow more freely than any of them, and it would not require a rich soil; so that the trial might be made with little expence or trouble.

It is common among the corn in Flanders, as well as in some counties of England; and they thrash it with the grain, and let it come into their bread; it increases the quantity, and does no harm.

Some have said that the bread in which it is mixed causes giddiness of the head and other complaints; but this is contradicted by those who have experience. It fattens cattle safely and speedily.

DIVISION II. FOREIGN SPECIES.

Woolly-topped Cow-wheat.

Melampyrum calycibus lanatis. *Pl. 10. 11.*

The root is long, slender, and white.

The stalk is square, erect, firm, and very little branched: it is a foot high, and usually is of a greenish colour.

The leaves stand two at a joint: they are long, narrow, and of a deep green.

Those which grow on the lower part of the stalk are not at all jagged; but those on the upper part have some indentings near the base.

The stalks are terminated by clusters of small, short leaves, placed very thick together, with a downy matter among them; and these are usually of a deep violet blue.

The flowers are large, and of a beautiful gold yellow.

The seed-vessel is oblong, and the seeds are few and large.

It is a native of Germany, and grows in woods and forests.

C. Bauhine calls it *Melampyrum coma carulea*.

GENUS

GENUS XIII.

HOODED MILLFOIL.

LENTIBULARIA.

THE flower consists of a single petal, approaching to the labiated shape: it is formed into two lips, a palate, and a spur: the upper lip is undivided and obtuse; the lower lip is larger, and is also undivided; the palate which rises between them is heart-fashioned: the spur is small, and runs out behind the flower. The cup is composed of ten little hollow leaves, and falls with the flower: the seed-vessel is round and large.

Linnaeus separates this genus from the generality of the others, placing it, with a few more in his second class, among the *diandria monogynia*; the threads being two in each flower, and the rudiment of the capsule single.

He also takes away its usual and received name *lentibularia*, and calls it *utricularia*.

I have restored the former and familiar name, and joined the genus to those with which it is united by nature; the number of the threads in the centre being a trivial consideration, when seen, in competition with the essential characters, by which it is placed among the plants that have a flower consisting of a single petal, and followed by a single capsule; this being the general distinction of the present class.

DIVISION I. BRITISH SPECIES.

1. Common Hooded Millfoil.

Lentibularia vulgaris. *Pl. 10. 12.*

The root is composed of a vast tuft of fibres.

From this grow numerous long and slender shoots, which spread upon the mud at the bottom of those waters in which the plant grows.

On these stand the leaves: they are of a dark green, beautifully divided, and as they are kept separate by the water make a beautiful appearance; but when taken out they fall together and lose their shape.

Among these grow round bodies, of the bigness of the leaves of duckweed: they are not a regular part of the leaves, nor do they grow from any distinct place on them, but irregularly among them, and in a great number; some terminate the shoots, and others are disposed loosely among the leaves.

The stalks rise from these shoots, and are slender, weak, and naked.

From the middle upwards grow the flowers: these stand singly on long footstalks, and are large and yellow: the spur is of a conic figure.

The seed vessel is large and round: the seeds are numerous and small.

It is common in ditches, and other stagnating waters in the fens in Lincolnshire, and elsewhere; and flowers in July.

C. Bauhine calls it *Millifolium aquaticum lentibulatum*. The common writers, *Millifolium galeculatum*, and *Hooded water millfoil*.

2. Little Hooded Millfoil.

Lentibularia minima. *Pl. 10. 12.*

This is an extremely minute but very pretty plant.

The roots are a few, white, long, and extremely small fibres.

The first shoots from these are numerous, long, slender, and naked for the most part; but sometimes there grow on them a few small and finely divided leaves: whether there be leaves or not, there are constantly many little round bodies, perfectly resembling those of the common kind.

The stalks are minute, extremely slender, and naked.

They are usually of a yellowish colour, sometimes redish; and on these stand the flowers.

They are large, and of a pale yellow: they have each a separate, short footstalk; and they grow at distances, one above another, from the middle of the stalk to the top.

The seed-vessel is round and small; and the seeds are very minute.

It is common in Northamptonshire, and in many places where it is not much regarded, floating upon the water.

It flowers in June.

Plukenet calls it *Millifolium palustre galeculatum minus flore minore*. Ray, *Lentibularia minor*. Boccone, *Aparine aquis innatans capreolis ornata*.

DIVISION II. FOREIGN SPECIES.

1. Large-leaved Lentibularia.

Lentibularia foliis majoribus.

The root is composed of numerous long, black fibres.

The first shoots spread upon the surface, and are large, and very finely divided; so that they resemble those of some of the water crowfoots.

N° XIII.

Among these grow several shoots, that spread likewise in the same manner, and have leaves on them like the first from the root, but smaller.

The stalks rise, some from these, and others from the root: they are slender and yellowish: they are not naked, as those of the preceding species, but have leaves of the same kind with

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those from the root: these are beautifully divided, and of a blackish green.

The flowers grow toward the tops of the stalks, and are large and yellow.

The seed-vessel is very large and round; and the seeds are small.

It is a native of North America, and flowers in August.

Plumier calls it *Linaria palustris feniculi folio*.

GENUS XIV.

WATER GLADIOLE.

DORTMANNA.

THE flower consists of a single petal, and approaches in some degree to the galeated kind, but not nearly so much as the others in general of this class: it is formed into a short tube split in the upper part, and two irregular lips: the upper lip consists of two segments, which are narrower and smaller; and the lower one of three, which are broader and larger; but when the flower is perfectly open this form is less observable: the seed-vessel is round and large; and the cup is divided into five slight segments. The leaves of the plant are hollow and divided within.

Linnaeus places this among his *syngenesia polygamia monogamia*; but he does not allow it to be a distinct genus: he places it among the *rapunculi*, which he arranges there under the name of *lobelia*.

The shape of the seed-vessel distinguishes it from his *lobelia*, and the structure of its leaves from all other plants. None is more properly of a genus separate from all others.

There is but one known species of this plant, and that is a native of Britain and other parts of the north of Europe.

Water Gladiolus.

Dortmanna. *Plate 10. 14*

The root is a cluster of long, thick fibres, which penetrate deep into the mud at the bottom of those waters where it delights to grow.

The leaves rise in a tuft twelve or fourteen together: they are long, narrow, and of a pale green, hollow within, and divided, in the manner of a pod of some of the wallflower kinds, into two separate empty spaces, by a membrane that runs lengthwise from the base to the point.

The stalk rises in the midst, and is yellowish and round: it rises to a great height when the water is deep; but with us, as it generally grows in shallow places, its length is about a foot: sometimes it is naked, sometimes there grow on it a leaf or two like those from the root.

The flowers stand at the top, in a kind of loose spike; but they hang on their footstalks, and generally fall all on one side: five or six is the usual number: but they rarely open together: they are of a pale purple.

The seed-vessel is large and round; and the seeds are numerous and small.

It is common in waters on the hills in the north of England; and flowers in July.

Ray led Linnaeus into the calling this a species of *rapuntium*; for he says its flower makes it such, though the seed-vessel shews a difference: but if the seed-vessel had been as like that of *rapuntium* as the flower, still the whole plant is so perfectly unlike, and its leaves are so extremely singular, that there is reason enough to keep it as a distinct genus.

Clusius calls it *Gladiolus lacustris Dortmanni*, from the name of Dortman a German apothecary, from whom he first received it: but, as *gladiolus* is the name of a distinct genus, it is better to call it, as Rudbeck does, *dortmanna*. C. Bauhine calls it *Leucium palustre flore subseruleo*. Others, *Gladiolus palustris*.

There is nothing known of the virtues of this or of the preceding plant: they are food for ducks and other water-fowl.

GENUS XV.

BROOMRAPE.

OROBANCHE.

THE flower is made of a single petal, and approaches to the labiated form: it consists of a tube and two lips: the tube is crooked, thick, and short: the upper lip is broad, hollow, and indented; and the lower lip is divided into three unequal segments, and turns back: the cup is divided lightly into four segments; and the seed-vessel is of an oval figure, but somewhat oblong, and pointed at the end.

Linnaeus places this among the *didynamia angiospermia*; there being four threads in the flower, of which two are longer and two shorter, and the seeds being contained in a capsule.

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DIVISION I. BRITISH SPECIES.

1. Common Broomrape.

Orobanche vulgaris. *Plate 10. 15*

This is a singular and strange plant; having neither the colour of the generality of plants, nor any thing that can properly be called leaves.

The root is thick, roundish, and composed of a multitude of scales, of a tough substance and yellowish colour, laid irregularly over one another.

The stalk is single, thick, upright, undivided, and a foot and half high: its colour is yellowish, and its substance light and tender.

At distances, from the bottom to the top, there stand certain little membranes of a yellowish brown also: these are short, and of an irregular figure, and are all it has by way of leaves.

The flowers stand at the top of the stalk, and, for a great way down it, at distances one from another; and each has one of these little membranes under it.

They are large, and gape very wide open: their colour is in part yellowish, and in part a dead faded purple; and their threads are white, and have black buttons, which are as conspicuous as any thing in the flower.

The seed vessel is oblong, and large at the bottom: the seeds are very minute.

It is common in barren pastures, and sometimes is found in cornfields.

It grows no where so plentifully as among fields of broom on barren heathy hills; in these places it usually grows to the root of the broom, and thence obtained its English name of *broomrape*; but they err who suppose it will not grow elsewhere. It flowers in July.

C. Bauhine calls it *Orobanche major garyophyllum oleus*. J. Bauhine, *Orobanche flore majore*. Others, *Orobanche vulgaris*.

This species sometimes has a lightly aromatick smell, but frequently nothing of this is to be observed: it depends in a great measure on the place of growth and particular condition of the plant.

DIVISION II. FOREIGN SPECIES.

1. Great-flowered Broomrape.

Orobanche flore maximo. *Plate 10. 17*

This is a much larger plant than either of our kinds, and the flowers are also remarkably larger, even in proportion to the bigness of the whole.

The root is an irregular knob, with some few straggling fibres: this knob is composed of scales, in the manner of ours, but it is not so large.

The stalk is firm, upright, a yard high, and not at all branched; and the whole plant is of a redish colour.

What stand for leaves are only a kind of small membranes sticking close to the stalk: there are more of them toward the bottom, fewer toward the top, and they are all of the same colour with the stalk, except that they are at first a little deeper.

It is good against obstructions, and is best given in a strong infusion.

The herb must be fresh gathered for this purpose, and the whole cut into thin slices, and having water poured on it: this, with a little white wine and syrup of marshmallows, operates powerfully by urine, and is good in jaundices and obstructions of the spleen.

A conserve of it is also recommended by some against hypochondriac complaints: and an ointment made of it with lard against schirrous tumours.

2. Branched Broomrape.

Orobanche ramosa. *Plate 10. 16*

The root is thick, large, and tuberous; it is composed of numerous irregular scales, in the manner of the other; and there are several fibres grow to it.

The stalk is firm, erect, and very much branched: it is of a redish colour, much slenderer than that of *common broomrape*, and of a firmer substance, and grows six or eight inches high.

The branches rise from it on all sides from the bottom nearly to the top.

There are no leaves but a few membranes, which are of a pale yellowish, and sometimes of a purplish colour; and grow irregularly on the stalk and branches.

The flowers stand in spikes at the tops of the stalks, thickly compacted together; and they are of a pale red, large, and conspicuous.

The seed-vessel is oval, and the seeds are very minute.

This is found in cornfields in the southern counties of England, but is not common.

C. Bauhine calls it *Orobanche ramosa*. J. Bauhine, *Orobanche minor purpureis floribus sive ramosa*.

The *common broomrape* is sometimes found with a flower smaller than ordinary, and in this condition has been described by some as a distinct species; but it is no more than a variety owing to accident in the growth.

2. Single-flowered Broomrape.

Orobanche flore solitario.

The root is a small knot of a scaly structure, from which there run lengthwise a few fibres.

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From this rise several stalks together: they are round, weak, slender, and naked, except at the base near the ground, where they have some little membranes in the place of leaves.

The whole plant is not more than four inches high; and at the top of the stalk stands a single flower.

This is large and yellow, though the colour

G E N U S XVI.

TOOTHWORT.

ANBLATUM.

THE flower consists of a single petal, and approaches to the labiated shape: the whole is formed into a tube, and two lips: the tube is short: the upper lip is long and undivided; the lower lip is shorter, but is also strait and undivided: these stand gaping open, and are both compressed: the seed-vessel is roundish, and pointed: the cup is swollen, flattened, and divided into four slight segments at the edge.

Linnaeus places this among his *didymia angiospermia*; the threads in each flower being four, of which two are longer, two shorter, and the seeds contained in a capsule. This author has taken away its familiar and usual name *anblatum*, and calls it *squamaria*.

This is his conduct in his *Genera*; but in that later work his *Species Plantarum*, he has joined it with some others, under the common name *latbræa*.

These genera approach very near to one another; but the difference is sufficient on which to establish their absolute distinction. There is but one known species of *anblatum*, and that is common to Britain and all the north of Europe.

Toothwort.

Anblatum. *Pl. 100. 19*

The root is extremely singular in form and substance: it is thick, white, fleshy, and of a scaly structure, spreading a great way, and that in a very irregular manner, just under the surface, one piece growing sideways from another, and a third from that, and so on in every direction.

The stalks are numerous: they rise from various parts of the root, but only one from each head: they are thick, fleshy, tender, white, or brownish, and six or seven inches high: the skin is tender, and the internal part full of a watery juice.

There are properly no leaves, but a kind of membranes, standing irregularly on the stalk, in the manner of those of broomrape.

S E R I E S II.

Plants of which there is no species native of BRITAIN.

G E N U S I.

CLANDESTINA.

THE flower consists of a single petal, and approaches to the labiated kind: it is formed into a tube and two lips: the tube is oblong, and the lips stand gaping open, and are of an inflated or swollen figure: the upper lip is hollow, and has a crooked point: the lower lip is divided into three small, blunt segments, and turns back: the cup is hollow, and divided deeply into four segments; and the seed-vessel is large, rounded, and terminated by a point.

Linnaeus

varies greatly, for it is sometimes purplish or blue.

It is a native of North America, and flowers in April.

Ray calls it *Orobanchæ aut belleborine affinis marilandica caule nudo unico in summitate flore*.

It is a very singular and very beautiful species.

Linnaeus places this among the *didymia angiospermia*; the seeds being contained in a capsule, and the flower having four threads, two longer, and two shorter.

This author takes away its former name, and calls it *latbræa*. It has the name *clandestina* from this circumstance, that almost the whole plant is buried, and grows under ground, nothing appearing above the surface but a small part of the stalk and the spike of flowers.

Purple Clandestina.

Clandestina purpurea. *Pl. 19. 1*

The root, properly and distinctly so called, is only a tuft of black, short fibres; but if we comprehend under that name all the part of the plant under ground, it is to be called thick and branched: this part, however, is properly the stalk, not the root of the plant, and is to be considered as such, from its manner of growing and office, though it take the place of the root; these black fibres alone being considered as part of the root.

The stalk is five inches high, thick, and divided into many branches: it is of a whitish colour, and full of juice, and is covered with a kind of rudiments of leaves: these are short, broad, and thin; and they lie in a scaly form upon the stalks.

G E N U S II.

BIRTHWORT.

ARISTOLOCHIA.

THE flower consists of a single petal, and is of an irregular figure: it is formed into a tube, which has a roundish, folded base, the foldings being six; and a wide mouth, which in the lower part runs out into a very long and undivided tongue: the tube is slightly hexangular: it has no cup; the seed-vessel is large and roundish, and in some degree hexangular.

Linnaeus places this among his *gynandria hexandria*; the buttons being six, and growing without threads to the pistil.

It very plainly belongs to the rest of this class; the flower being composed of one petal of an irregular form, and followed by a single seed-vessel; and it is one of the misfortunes of Linnaeus's method that he separates it from those to which it is allied, placing it in a distinct arrangement, because of this little singularity of the buttons.

1. Round Birthwort.

Aristolochia rotunda. *Pl. 19. 2*

The root is very large, tuberous, and of a roundish figure, with many fibres growing irregularly from various parts of its surface: it is rough on the surface, brown on the outside, and yellow within; and is of a bitter and very disagreeable taste.

The stalks are numerous, weak, and square: they are of a pale green colour, and are two feet long, but not able to support themselves upright.

The leaves are placed singly, and at considerable distances, and have no footstalks: they are large, and of a deep green: they are of a heart-fashioned shape, encompassing the stalk at the base, and thence growing smaller to the end, where they terminate in an obtuse point.

The flowers stand singly on long footstalks rising from the bosoms of the leaves: they are long and crooked, and are of a greenish colour on the outside, and of a blackish purple within.

The seed-vessel is very large, and of an oval

N° 13.

figure: it contains many seeds, with a fungous matter between them.

It is common in the hedges of Spain and Italy, and in the south of France.

C. Bauhine calls it *Aristolochia rotunda flore ex purpurea nigro*. Others, only *Aristolochia rotunda*.

There is a variety of this plant, with the flower of a whitish purple, instead of a blackish purple: this has been treated of as a distinct species, but it is nothing more than a variation from accident.

2. Long Birthwort.

Aristolochia longa. *Pl. 19. 3*

This is distinguished at sight from the other, though it greatly resemble it in the general form, by its having footstalks to the leaves, the other having none.

The root is large, thick, and of an irregular oblong figure.

The stalks are numerous, weak, and square: they are of a pale green, a foot and half long, but not erect: they trail, and hang among any thing that will support them.

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The leaves are rough, of a pale green, and of a heart-fashioned shape, but with an obtuse point: they stand alternately, and have moderately long, slender, pale green footstalks.

The flowers rise single from the bosoms of the leaves, and are long, hollow, and crooked: each has its separate short footstalk; and is of a greenish colour, and striated on the outside, and purple and rough within.

The seed-vessel is large and oval, and contains numerous seeds, with a pithy or spongy white matter between them.

It is a native of Spain and Italy; and flowers in July.

C. Bauhine calls it *Aristolochia longa vera*. Others, *Aristolochia longa hispanica*; and, simply, *Aristolochia longa*.

3. Clinching Birthwort.

Aristolochia clematitis. *Pl. 1794*

The root is long, slender, and creeping: it runs under the surface, and sends up a great number of stalks from different parts, and a multitude of black fibres downward.

The stalks are of a pale green, jointed, and crooked, but more firm than the others, and three feet high.

The leaves are large, and of a heart-fashioned shape: they stand alternately, and have long footstalks.

The flowers rise from the bosoms of the leaves, but not singly, as in the two preceding kinds, but in considerable tufts together: they are long and hollow, and of a pale greenish white colour.

The seed-vessel is very large: when fully grown it is as big as a walnut; and it contains many seeds, with a white spongy matter between them.

It is a native of the south of France; and flowers in June.

I have seen it in woods in Essex, but imagine it came from roots or pieces of the stalks out of lord Petre's garden.

C. Bauhine calls it *Aristolochia clematitis reſta*. Others, *Aristolochia saracenicæ*; and, simply, *Aristolochia clematitis*.

4. Small Birthwort.

Aristolochia minor pistolochia diſta. *Pl. 1794*

The root is composed of a great many tuberos, long, and not very thick pieces, with many fibres growing to them, and among them.

The stalks are numerous, very weak, and trailing: they are a foot long, crooked from joint to joint, and of a pale green.

The leaves stand on short footstalks, and they are small, and heart-fashioned, very lightly and irregularly notched at the edges, and sometimes not at all so, and blunt at the end.

The flowers are large, hollow, and crooked as the others; they rise singly from the bosoms of the leaves.

The seed-vessel is large, and has a white pith in it, together with the seeds.

It is a native of France, and flowers in August. C. Bauhine calls it *Aristolochia pistolochia diſta*. Others, *Aristolochia parva*; and *Aristolochia polyrrhizos*.

These four possess the same virtues, and are warm, drying, and aperient. The round is the best; the long has the next degree of virtue; these others much less.

It is used in the famous powder now in so great esteem for the gout, and is one of the chief ingredients: some have omitted it in making that powder for female patients, and the effect has been greatly impaired. The reason of omitting it on these occasions has been its power as a promoter of the menses, not at that time required.

Birthwort is a strong, but disagreeable bitter; this makes it less used than it deserves. It is excellent in disorders of the head, and in obstructions of the viscera.

It is given with success against the stuffings of the lungs, and obstructions of the menses; and is excellent to promote the necessary discharges in lying-in.

5. Snakeroot Birthwort.

Aristolochia serpentaria virginiana diſta.

The root consists of a vast quantity of long, slender, and interwoven filaments with a small head: these are of a pale greenish brown colour, and are of a fragrant smell.

The stalk is slender, jointed, weak, and unable to support itself erect: it is a foot or more in length, and of a pale green, rarely at all branched.

The leaves are oblong, and of a smooth surface: they are of a pale green colour, and stand on slender footstalks: they approach to the heart-fashioned shape, but less than in the other kinds.

The flowers have long footstalks: they rise from the bosoms of the leaves, or naked joints of the stalk: they are long and hollow, like the others.

The seed-vessel is large, and contains many seeds, with a white pith surrounding them.

It is a native of Virginia, and of other parts of North America; and flowers in July.

This is the plant whose root is called at the druggists *Serpentaria Virginiana*. Plukenet calls it *Aristolochia pistolochia*, seu *Serpentaria Virginiana caude nodoſa*. Others, *Pistolochia Virginiana*.

Those who gather the roots for exportation are not so careful as they should be in taking only the right kind; for there are several other species of small birthworts common wild in the same places; they fancy they have all the same virtues, and therefore gather all together: but experience shews this, though countenanced by some great names, to be an error; for not one of the others has the fragrant or true taste of this: they should therefore be separated carefully.

The root of this kind is celebrated among the Indians as a remedy against the bites of venomous serpents, whence it had the name *snakeroot*; and with us it is found to be an excellent cordial and sudorific.

It is good in fevers, in all disorders of the head and nerves, and in obstructions of the viscera. It may be taken in powder or infusion, but the best way is in tincture made in brandy.

6. Spear-

6. Spear-pointed Birthwort.

Aristolochia foliis lanceolatis.

The root consists of a vast number of long, slender filaments.

The stalk is upright, firm, and hard; of a pale green colour, and almost woody substance.

The leaves stand alternately, and have short footstalks: they are long, narrow, and heart-fashioned at the base, but they run out from thence into a slender, sharp point.

The flowers are long, hollow, and of a dusky

colour: they have short footstalks, and they stand singly in the bosoms of the leaves.

The fruit is large and roundish; and the seeds have a pithy substance about them.

It is a native of Virginia, and flowers in August.

Plukenet calls it *Aristolochia polyrrhizos auriculatis foliis Virginiana*.

It is one of the kinds the roots of which are used among those of the right Virginian snakeroot; but it is very much inferior to the true kind in virtue.

GENUS III.

GERARDIA.

THE flower is made of a single petal, and is of the labiated form: it consists of a tube and two lips: the tube is oblong and rounded: the upper lip is broad, obtuse, and emarginated: the lower lip is divided into three segments, and turned back: the cup is divided at the edge into five segments; and the seed-vessel is of an oval form, and opens at the base.

Linnaeus places this among the *didynamia angiospermia*: the threads in the flower being four, two longer and two shorter, and the seeds enclosed in a capsule.

Others have referred the several species of this genus to the foxgloves, but they are absolutely distinct.

Another plant of the umbelliferous kind, and altogether different from this, has been called *herba gerardi*: let the student take care the sound of the name do not confound in his mind plants so distinct.

1. Narrow-leaved Gerardia.

Gerardia foliis angustis. *Pl. 1794*

The root is long, slender, and furnished with many fibres.

The stalk is round, firm, erect, rarely at all branched, and a foot high.

The leaves stand in pairs, and have no footstalk: they are long, very narrow, and of a pale green; pointed at the ends, and undivided at the edges.

The flowers rise from the bosoms of the leaves, and are very large and beautiful: they stand singly, and have short footstalks: they are hollow, deep, wide open at the mouth, and of a beautiful red colour.

The seed-vessel is large and oval; and the seeds are small, numerous, and brown.

It is a native of Virginia, and flowers in June.

Plukenet calls it *Digitalis Virginiana rubra foliis et facie antirrhini vulgaris*.

2. Jagged-leaved Gerardia.

Gerardia foliis laciniatis. *Pl. 1794*

The root is composed of numerous thick fibres.

The stalk is round, firm, brownish, erect, and a foot and a half high.

The leaves are placed in pairs, and have no footstalks: they are long, narrow, and very deeply divided all along the edges, inasmuch that some toward the bottom of the plant are of a pinnated form.

The flowers are numerous, large, and beautiful: they are hollow, deep, and of a gold yellow colour: they rise from the bosoms of the leaves singly on long footstalks, and one or two of them generally terminate the stalk.

The seed vessel is oval and large: the seeds are numerous and small.

It is a native of Virginia, and flowers in July.

Gronovius calls it *Anonymos floribus flavis speciosis digitalis equalibus*.

GENUS IV.

CHELONE.

THE flower consists of a single petal approaching to the labiated form: it is disposed into a tube and two lips: the tube is short, and the opening of the mouth is inflated and oblong: the upper lip is obtuse and dentated at the top: the lower lip is very lightly divided into three segments, and there is no opening: the cup is small, and divided at the end into five segments: the seed-vessel is oval and oblong.

Linnaeus places this among the *didynamia angiospermia*; the threads being in each flower four, two longer and two shorter, and the seeds contained in a capsule. There is in all the species a rudiment of a fifth thread.

Smooth

Smooth Chelone.

Chelone foliis glabris. *Plate 19. n. 12*

The root is long, slender, and furnished with many fibres.

The stalks are numerous, round, firm, upright, and considerably branched.

The leaves are long, narrow, and beautifully serrated at the edges: they stand very irregularly on the stalks; those toward the bottom alternately; and those toward the top in pairs.

The flowers are large and white: they stand in small clusters at the top of the stalk and branches, and are of a singular aspect, short, thick, hollow, and close at the mouth.

The seed-vessel is oval, and the seeds are large and three-cornered.

It is a native of North America, and flowers in July.

Tournefort calls it *Chelone acadiensis flore albo*. Ray, *Digitalis mariana perfolia folio*; the larger leaves resembling those of the peach tree.

G E N U S V.

TRUMPET FLOWER.

BIGNONIA.

THE flower is made of a single petal, and is of the labiated form: it consists of a tube, a hollow body, and a divided rim: the tube, properly so called, is very short, and reaches no farther than the cup: the body is very long and hollow; and the rim is divided into five parts, two of which are turned back; these stand upwards, and the other three hang downward, and spread out: the cup is hollow, and divided into five segments at the rim; and the seed-vessel is formed in the manner of a pod.

Linnaeus places this among the *didynamia angiospermia*; the threads in each flower being four, two longer and two shorter, and the seeds being contained in a capsule.

1. Ever-green Trumpetflower.

Bignonia sempervirens. *Plate 19. n. 9*

The root is long, thick, tough, and spreading. The stalks are numerous, very long, weak, and climbing, but of a woody substance.

The leaves stand in pairs, and have very short footstalks: they are large, oblong, and considerably broad, undivided at the edges, and sharp-pointed.

The flowers stand in the bosoms of the leaves, and have short footstalks; two stand together, one in the bosom of each leaf of the pair, and so all the way up the stalk: they are large and yellow, and have a very fragrant smell.

The seed-vessel is of a heart-fashioned shape.

The seeds are winged.

It is a native of Virginia, and has been called by many names.

Plukenet calls it *Syringa volubilis Virginiana*, *myrti majoris folio*, *alato semine*, *floribus odoratis luteis*. Catesby, *Jasminum luteum odoratum Virginianum scandens sempervirens*. Ray and others allow it as a *Bignonia*.

2. Finger-leaved Trumpetflower.

Bignonia foliis digitatis. *Plate 19. n. 13*

The root is long, spreading, and full of fibres. The stem is woody, and the bark brown, with a tinge of red.

The leaves are of a very beautiful colour and figure: five grow on every footstalk, and are disposed in a digitated manner: three of the five stand forwards, and have long footstalks; two are shorter and stand back, and these have also very short footstalks: they are of a firm substance, and their colour is a bright green.

The flowers are very large, and white.

The seed-vessel is long, in the manner of a pod, and when ripe it splits at the end.

It is a native of Jamaica, and grows on the banks of waters, and in damp places: it flowers in July.

Sir Hans Sloane has described it under the name of *Nerio affinis filigosa*, *folio palmato flore albo*.

G E N U S VI.

BEARS BREECH.

ACANTHUS.

THE flower consists of a single petal, and approaches in shape to the labiated kind: the whole is formed into two parts, a tube and a single lip. The tube is very short: there seems an upper lip wanting; the lower, which is its only lip, is very long, and divided into four obtuse segments: the cup is of a singular structure, as well as the flower: it consists of six leaves; two are placed sideways, opposite, and erect, and these are small; two are again placed opposite, and stand at top and bottom; these are larger; and there are beside these, two other very minute ones, whose position is also sideways. The seed-vessel is oval.

Linnaeus places this among the *didynamia angiospermia*; the threads in each flower being four, two longer and two shorter, and the seeds contained in a capsule.

1. Smooth

1. Smooth Bears Breech.

Acanthus mollis. *Plate 19. n. 10*

The root is long, slender, white, divided into many parts, and furnished with numerous fibres.

The first leaves are large, and extremely beautiful: they rise in clusters ten or twelve together, and have no footstalks: they spread as they grow up, and some lie upon the ground, while those in the middle keep more erect.

These leaves are long, and considerably broad, deeply divided into three or four pairs of large segments at the edges, and they terminate in a larger portion, of the same form, at the point: these several parts are all irregularly indented at the edges, and give the leaf the aspect of those of the pinnated kind, though they are not divided nearly to the rib: the colour is a beautiful deep green, and the surface glossy. The curious reader will not be offended at so long and minute a description of a leaf admired so extremely for its beauty among the antients, and copied into so many of their ornamental works.

The stalk rises in the centre of this cluster of leaves, and is thick, firm, upright, and three feet high: the leaves stand irregularly on it, and are large toward the bottom, and smaller near the top; so that they give the whole plant a conical figure: those on the upper part of the stalk are more divided at the edge, and those at the lower part less.

The flowers stand in a long, thick spike, terminating the stalk, and are large and white.

The seed-vessels are large, and the seeds are small.

It is a native of Italy, and of the Greek islands, and flowers in June.

C. Bauhine calls it *Acanthus sativus sive mollis Virgilii*. Others, *Branca ursina*, and *Acanthus sativus*, and *Acanthus mollis*. We call it *Brank ursine*, or *Bears breech*. It grows very well in our gardens.

A great deal of learned nonsense has been put together by critics on the subject of the *acanthus* of the antients: but had they been better botanists they would have been more in a condition to have understood their authors; and would have saved their readers much trouble.

The names *acanthus* and *acantha* occur very frequently in the writings of the Greeks and Romans, and are often used for different prickly shrubs and plants, according to the more or less accurate expression, or determinate meaning of their authors; but the reader at this time is little concerned about any except the one plant, properly, determinately, and generally, called *Acanthus*. This was the herb whose leaves they have so much celebrated for their beauty; and which, we find, their artists have introduced into various kinds of carved work, and of which the leaves in the capital of the Corinthian order in architecture are formed. This is the proper *acanthus*, and is the kind here described and figured.

Its greatest fame is in the capital just named, which, we are told, Callimachus formed upon the model of a basket, covered with a tile, and surrounded with the leaves of an *acanthus* plant, upon whose root it had accidentally been set. This basket continues the vase of the capital; the leaves and stalks are the ornaments with

N° XIV.

which it is covered; and the tile forms its abacus.

Such was the original Corinthian capital; but sculptors, even in those ages of chaster taste, had the error, so common at this time, of supposing every thing that is laboured must be beautiful. Instead of the great and noble simplicity of this natural leaf, they soon began to decorate it with more carving: they split the edges of its several segments, variously into three, or into five distinct and separate leaves: these they left plain and even at the edges; and, because the form of the whole was altered, they called the first variation, where the division was into three, the *laurel*, and the other, where it was into five, the *olive* leaf. In both, the proper form and beauty of the leaf are lost: it is neither noble nor in nature: it becomes a monstrous production of ignorant art: the whole is a body of *acanthus* leaf bearing olive or laurel leaves at its top and sides.

One grieves to see this in the antique, but the remains of many of their great works are disgraced by it. The leaves on the capitals of the columns in the temple of Vesta at Rome are of the laurel kind; those of the Basilick of Antonine of the olive; and there are many more instances, needless to be recounted here, both of one and the other division. In the temple of Vesta at Tivoli we see the true *acanthus*. Nothing reflects more upon the taste of architecture, in that time of its eminent glory, so much as this insult upon nature; the preferring to her great simplicity the littleness of art.

2. Prickly Bears Breech.

Acanthus aculeatus. *Plate 19. n. 11*

The root is long, thick, usually single, but furnished with many small fibres.

The leaves that rise from it are very large and beautiful; but they have not the elegant simplicity of those of the former kind: they are long and broad, and are divided so deeply into many pairs of segments that they very much resemble the pinnated form, but they are not cut to the middle rib: these segments are notched at the edges, and the whole leaf is covered with long, white, and sharp prickles.

The stalk rises in the centre of this tuft, and is thick, firm, upright, and two foot and a half high.

The leaves that stand on it are like those from the root, but less divided, and of a paler green.

The flowers are large and white, and they stand in a thick spike terminating the stalk.

The seed-vessel is large and oblong; and the seeds are small.

It is not uncommon in Italy, growing mostly in damp shady places about the edges of rivers and in thickets. It flowers in June.

C. Bauhine calls it *Acanthus aculeatus*. Others, *Acanthus silvestris*.

This species was known to the antients as familiarly as the former, but they did not much regard it. Some of more depraved taste introduced its figure into ornaments of carved work; but it makes a confused and poor appearance. The true *acanthus* leaves have an open freedom and an easy grace not found in any of these, whether from art or nature.

M m

Beside

Beside the variations we have named in the Corinthian capital, where the antients cut the ends and tops of the *acanthus* into laurel and olive leaves, we are to mention that in the remains of what is called the composite order, these ends are cut and split with the chissel much farther than in nature. In this state they are called parsley leaves; and we see an instance of them in the composite columns of the arch of Severus, and elsewhere: but they are here more pardonable, though no where to be commended. The Romans had a right to indulge their fancy in this composition (for it does not deserve the name of an order), because it was of their own invention; but they are inexcusable in maiming the Corinthian, a proper and distinct order, and the inventions of their masters the Greeks, the fathers of science.

3. Holly-leaved Acanthus.

Acanthus foliis aquifolii. *Pluk. 1740*

The root is long and spreading.

The stalks are numerous, large, woody, and

G E N U S VII.

B A R L E R I A.

THE flower consists of a single petal, and approaches to the labiated kind: it is formed into a tube, a body, and two lips: the tube is short, and is contained in the cup: the body is oblong and swelled: the upper lip is nip'd at the end, and stands erect: the under one is divided into three segments; the middle one of which is just the figure of the entire upper lip: the cup is divided into five slender segments; and the seed-vessel is oblong and square.

Linnaeus places this among the *didynamia angiospermia*.

1. Four-prickled Barleria.

Barleria spinis quaternis. *Pluk. 1740*

The root is large, divided into many parts, and full of spreading fibres.

The stem is hard, woody and covered with a brown bark.

There are numerous and very sharp prickles on the branches, and they are disposed very regularly, four together, in form of a cross.

The leaves are large and oblong: they stand in pairs, and have very short footstalks: they are

G E N U S VIII.

O I L Y - G R A I N.

S E S A M U M.

THE flower consists of a single petal, and somewhat approaches to the labiated kind: the whole is formed into a small tube, an inflated body, and a divided edge: the tube is short, and contained within the cup: the body is large and broad, deep and hollow; the edge is divided into five parts, four of which are broad and equal, and the fifth narrow, and altogether different from the rest: the cup is divided into five small segments at the edge: the seed-vessel is large, oblong, and square, and contains numerous seeds.

Linnaeus places this, as the others, among the *didynamia angiospermia*; the threads in each flower being four, two of which are longer and two shorter, and the seeds contained in a capsule.

2

1. Long-

armed with many short, but very sharp and sturdy prickles: they are tough, and covered with a pale greyish rind.

The leaves are large, oblong, considerably broad, and of a bluish green colour: they are deeply and very irregularly divided into three or four segments on each side, and these all end in prickles: they terminate also in a short, irregular, prickly point at the extremity.

The flowers grow at the tops of the branches, and are very large and gaping.

The seed-vessels are large and double; and the seeds are small.

It is a native of the East Indies.

Commelin calls it *Carduus aquaticus sylvestris inodorus*. Pitiver, *Acanthus Malabaricus agrifolius folio*.

The root is esteemed good in the gravel. The roots of the common *acanthus* have the same virtues, operating by urine, but not in a degree worth notice.

of a bright green, undivided at the edges, and sharp-pointed.

The flowers rise from the bosoms of the leaves, and are large and beautiful: each has its separate short footstalk, and there generally grows a tuft of young leaves about them.

The seed-vessel is large, and spread on the surface; and the seeds are numerous, rounded, and flat.

It is a native of the East Indies, and flowers in July.

Plukenet calls it *Melampyro cognata maderas patana spinis horrida*. The Indians, *Coletta vetula*.

1. Long-leaved Sesamum.

Sesamum foliis oblongis. *Pluk. 1740*

The root is long, thick, and furnished with many fibres.

The first leaves are long and large: they rise in a thick cluster, and have short footstalks; and their colour is a pale green: they are broadest toward the base, sharp at the point, and slightly indented at the edges.

The stalk is thick, firm, upright, and not at all branched: it is two foot and a half high, and is of a pale green, and striated on the surface.

The leaves are numerous, and of a pale green: they are perfectly like those from the root, only smaller and less indented, and sometimes not at all so.

The flowers are large, and white, with a tinge of purplish; sometimes altogether red: they rise from the bosoms of the leaves, and stand on short, slender footstalks.

The seed-vessel is long and large, and contains a large quantity of seeds.

It is a native of Zeylon and Malabar, and is sown in fields about Adrianople.

Burmian calls it *Digitalis orientalis sesamum diha*. Others, only *Sesamum*. The flower somewhat resembles foxglove, whence it has obtained the name of *oriental foxglove*; but the seed-vessel is perfectly different, and makes it another genus.

An oil is made from it in Turkey, and is famous in many external applications. We used

to have it here, but it is of late neglected entirely. It is esteemed good against headaches, and a few drops put into ears for deafness.

2. Various-leaved Sesamum.

Sesamum foliis variis. *Pluk. 1740*

The root is long, large, and white: it penetrates deep into the ground, and has a few fibres.

The first leaves are oblong, broad, small, and of a deep green: they have short footstalks, and are undivided at the edges.

The stalk is round, firm, upright, and not at all branched.

The leaves grow in pairs, but they are considerably different in form on the various parts of the plant: those which grow lowermost are divided into three parts, two short toward the base, and one long, which terminates them; and all these are indented at the edges. The upper leaves are oblong, narrow, and indented; they are broadest at the base, and smaller all the way to the point; and they have long and slender footstalks.

The flowers grow in the bosoms of the leaves: they are very large, and have separate slender footstalks.

The seed vessel is long and squared; and the seeds are numerous.

It is a native of the East Indies, and flowers in July.

Plukenet calls it *Sesamum alterum foliis trifidis*.

G E N U S IX.

R U E L L I A.

THE flower consists of a single petal, and approaches to the labiated form: it consists of a short tube, hid within the cup; an open and drooping neck; and, above that, an edge divided into five segments: two of these which stand upward are somewhat reflex; the other three point downward, and are more strait: the cup is formed of a single leaf, divided at the edge into five narrow segments; and the seed-vessel is long, slender, rounded, and pointed at each end.

Linnaeus places this among the *didynamia angiospermia*; the threads in each flower, as in most of the preceding species, being four, two of which are longer and two shorter; and the seeds being thus contained in a capsule.

The first of these characters they enjoy in common with the flowers properly of the labiated kind; those having four threads, which are thus of unequal lengths: the other is peculiar, for the seeds of all the plants properly of the labiated kind stand in the bottom of the cup.

This shews, that the particular arrangement of the threads, two long and two short, which is one of the most singular characters in the method of Linnaeus, is not, nor can be, the proper mark of a class: though he has made it so; because of the numerous plants which have the threads in this number and order, some have the seeds naked, others regularly contained in a capsule.

Linnaeus saw this difference, and arranged the plants under two separate heads, though in the same class: but this is the same error Ray made, in making the regular and irregular monopetalous flowers only a sub-distinction; whereas it is truly, and in nature, a classical character.

Procumbent Ruellia.

Ruellia procumbens. *Pluk. 1740*

The root is white, small, and thready.

The stalks are numerous, round, yellowish, slender, and five or six inches long: they lie every way spread upon the ground, and frequently take root at the joints.

The leaves stand in pairs, and are short and broad: they are sharply serrated at the edges,

obtusely at the end, and of a fresh green:

The flowers grow at the tops of the stalks, three or four in a little cluster, and are of a pale red.

The seed-vessel is long, and the seeds are numerous and small.

It is a native of the East Indies and the American Islands, and flowers in May.

Plukenet calls it *Gentianella impatiens foliis agerati*. In Barbadoes they call it *Snappgrass*.

BRITISH HERBAL.

CLASS VI.

Plants whose flower is composed of TWO PETALS, and is followed by a SINGLE CAPSULE.

THIS is a class extremely distinct; and characterised by the most plain and obvious marks. It contains but a very small number of plants; but one would imagine no system could err so far from the path of nature as to add any more to it, or to separate these; the characters by which they are distinguished from all other plants, and allied to one another, being so extremely singular and striking: yet, in the modern methods and systems of botany, there is no place appropriated to these; but they stand at random among others.

Linnaeus has placed the *water starwort* in his class of *monandria*, and the *enchanter's nightshade* in his class of *diandria*; because there is but a single thread in the flower of the former, whereas there are two in that of the latter: on these minute parts is the attention of that author so fixed, that these plants, are separated by the means of the threads; although they agree with one another in the flower and seed-vessel; and have in both a character which is in common with few others.

These are the most useful distinctive marks: the more conspicuous such characters are, and the fewer plants they unite, the clearer and more familiar will be the method, and the easier and plainer the student's road to the science.

Mr. Ray includes these plants and those which have three petals to the flower, and a single capsule for the seed, together in one class. He seems in this to have been influenced only by the small number there are of plants belonging to each; but this, as we have observed, is a happiness, or thing to be sought, not avoided: we should observe nature strictly where it is found; and not confound her distinctions, by joining plants where she has separated them so plainly. Mr. Ray makes the number of petals a mark of distinction for a class in other cases where the seed-vessel is single; and there is the same cause here. If the *pentapetala vasculifera*, or those which have five petals and a single seed-vessel, be classically distinct from the *dipetala* and *tripetala*, those which have two, and three petals and a single seed-vessel; so are these two kinds, the *dipetala*, and *tripetala*, from one another: the reason is exactly the same, and he who used the character taken from the number of petals as a class mark in one place, should not have refused it in another.

SERIES I.

Natives of BRITAIN.

Those of which there are one or more species native or wild in this kingdom.

GENUS I. WATER-STARWORT. STELLARIA.

THE flower is composed of two petals, and has no cup: the seed-vessel is round and compressed. Linnaeus places this among his *monandria digynia*; there being only one thread in each flower, and the styles, or filaments, from the rudiment of the capsule being two.

This author takes away its usual name *stellaria*, and calls the genus *corispermum*; uniting with it, under that name, the *rhagrostis*, a distinct genus, as we shall shew in its place.

DIVI.

DIVISION I. BRITISH SPECIES.

1. Common Water-Starwort.

Stellaria vulgaris. Mal. 20. 1.

The root is a great cluster of long and slender fibres.

The stalks are numerous, green, slender, very weak, and a foot or two in length: they rise to the surface of the water usually, as the most common place of its growth is in shallow ditches.

The leaves grow in pairs all the way up the stalks, but at the tops in clusters: those on the stalks are longish, narrow, and of a pale green: they have no footstalks: they are pointed at the ends, and undivided at the edges.

The leaves on the top form themselves into a kind of head: they are smallest in the centre, larger all the way outwards, and spread in the manner of a star, whence the plant has its name.

The flowers are small: they stand at the joints of the stalks, where the leaves also rise; and there usually are two of them together: they are whitish, and the two petals which compose them are hollow, and converge together: there is a single yellow button to each, supported on a long thread.

The seed-vessel is rounded, flat, and marked with four lines on the surface.

The seeds are numerous and small.

It is common in our ditches, and flowers in May.

C. Bauhine calls it *Stellaria aquatica*. Others, *Stellaria aquatica vulgaris*.

2. Blunt-leaved Water-Starwort.

Stellaria repens foliis obtusis. Mal. 20. 2.

The root is composed of numerous very slender fibres.

The stalks are many and weak: they are round and jointed: they rise but a little height in the water, where they are covered; but when the plant grows in mud, as is common, with very little water, then they lie spread every way upon the surface; and, in both cases, wherever they touch they take root at the joints.

DIVISION II. FOREIGN SPECIES.

1. Alternate-flowered Water Starwort.

Stellaria floribus alternis.

The root is composed of many slender threads, of a whitish colour, and very tender substance.

The stalks are numerous, round, and of a pale green.

The leaves are long, narrow, and of a dead green, undivided at the edges, and sharp at the points.

The leaves are few, and of a faint green: they grow in pairs, and have no footstalks: they are short, and rounded at the end: at the top of the stalk there stand four, or more, in a little cluster, but not disposed with that regularity we see in those of the former species.

The flowers are small and white: they are placed in the bosoms of the leaves, and the petals of which they are composed stand wider than in the other.

The seed-vessel is square, but flattened: the seeds are very numerous and minute.

It is common in puddles and about the edges of fish-ponds, and flowers in April.

C. Bauhine calls it *Lenticula palustris bifolia fructu tetragono*. Dillenius, *Stellaria minor et repens*.

3. Long leaved Water-Starwort.

Stellaria longifolia.

The root consists of fibres, but they are not, as in the others, long and slender; they make a very thick head of short ones almost innumerable.

The stalks are numerous, weak, and a foot or more in length.

The leaves stand in pairs on the stalks, and in a starry tuft at the top: those on the stalks are long, narrow, and often curled at the edges, and split at the points: the others are sharp-pointed, and spread upon the surface, in form of a star.

The flowers are very small, and yellowish: each is composed of two narrow petals, and in the centre there rises a short filament with a yellow button.

The seed-vessel is rounded and flat: the seeds are very numerous and small.

It is common in salt-water ditches, and sometimes in fresh. I have observed it abundantly in the ditches on the Isle of Shipey.

It flowers in June. Ray calls it *Stellaria aquatica foliis longis tenuissimis*.

It is common about the shores of the Volga; and flowers in July.

Jussieu calls it *Corispermum floribus lateralibus*.

The seed-vessel is roundish and flattened.

Nothing is known of the virtues of these plants.

G E N U S II.

ENCHANTERS NIGHTSHADE.

C I R C Æ A.

THE flower is composed of two petals, divided at the ends, and spread open: the cup consists of two small, oval leaves, and falls with the flower: the seed-vessel is oval and rough, and contains only two seeds.

Linnaeus places this among the *diandria monogynia*; there being two threads in each flower, and the style from the rudiment of the capsule single.

DIVISION I. BRITISH SPECIES.

Common Enchanters Nightshade.

Circea lutetiana. *Fl. 20, 21*

The root is large and spreading, and is furnished with many fibres.

The stalk is round, firm, upright, and ten inches high.

The leaves stand in pairs, and have long footstalks: they are of an oval figure, and terminate in a sharp point; they are broadest at the base, and smaller all the way to the extremity; their colour is a deep beautiful green; and they are a little indented at the edges, but it is slightly and irregularly.

The flowers stand in a long spike at the top of

the stalk: they are small and white; each has its separate footstalk; and they stand in a very regular manner: when the plant has been any time in the flower these occupy the top of the spike, and seed-vessels hang from their footstalks on the lower part: besides the larger spike which terminates the stalk, there are usually smaller from the bosoms of the upper leaves. The two petals of which each flower is composed are so split that it seems to have four.

The seed-vessels are small and rough.

It is a native of our woods and thickets, and flowers in April.

C. Bauhine calls it *Solanifolia circea dista major*. Others, *Circea lutetiana*; or simply *Circea*.

DIVISION II. FOREIGN SPECIES.

1. Dwarf Enchanters Nightshade.

Circea minima.

The root is white, and spreads under the surface.

The stalk is round, weak, and in part procumbent: it is four inches long, and lies half that length upon the ground.

The leaves are broad and short, largest at the base, and smaller to the point, not at all indented at the edges, and of a blackish green.

The flowers stand in a spike at the top of the stalk, and are white, with a bluish of red: the cup is whitish, and coloured at the edges.

The seed-vessels are short, and roundish rather than oval.

C. Bauhine calls it *Solanifolia Circea alpina*. Linnaeus, *Circea caule ascendente racemo unico*.

2. Broad-leaved *Circea*.

Circea latifolia.

The root is long, thick, and spreading.

The first leaves are very large, and of an oval

figure, broad at the base, and obtuse at the ends: there are only two or three of them in a tuft; and they have short footstalks.

The stalk is round, upright, firm, hairy, and two feet high.

The leaves stand in pairs, and have long footstalks: they are broad and oblong, widely serrated, and sharp-pointed; and their colour is a beautiful deep green.

The flowers are white, with a tinge of purple sometimes, but not always; they stand in long spikes on the top of the stalk, and on branches rising from the bosoms of the upper leaves: the seed-vessel is large and rough.

It is a native of North America, and flowers in May.

Tournefort calls it *Circea canadensis latifolia flore albo*.

Nothing is certainly known of the virtues of these plants.

The END of the SIXTH CLASS.

THE
BRITISH HERBAL.

C L A S S VII.

Plants whose flower is composed of THREE PETALS, and is followed by a SINGLE CAPSULE.

THIS class has all the advantages of the last, in being clearly, familiarly, and obviously distinguished: like that also it comprehends only a few plants; and there is the same reason for keeping them separate from all others, the rendering the path to the science easy and plain.

Linnaeus, however, separates them into very distant parts of his works, placing the *frogbit* among his *diocia enneandria*, and the *stratiotes* among the *polyandria hexagynia*.

Mr. Ray joins the plants of this, as we before observed, with those of the last class; but he is much more excusable than Linnaeus in separating them so widely one from another.

S E R I E S I.

Natives of BRITAIN.

Those of which one or more species are native of this country.

G E N U S I.

FROGBIT.

HYDROCHARIS.

THE flower is composed of three roundish petals, which spread evenly open: the cup is composed of three small, oval leaves: the seed-vessel is skinny, roundish, and divided into six cells.

Linnaeus places this among his *diocia enneandria*; some plants of it having only male, and the other only female flowers; and the stamina in the male flowers being nine.

The difference in the male and female plants of this genus is this, that in the male three flowers grow together, and there is a general husk for them, beside the particular cup for each; and in the female the flowers stand single, having only their proper three-leaved cup, and are succeeded by a capsule, which those of the male plants are not. This is all the obvious difference; but, when closer examined, the female flowers are found to have no threads.

Of this plant there is only one known species, and that is a native of Britain.

Common Frogbit.

Hydrocharis vulgaris. *Note 20.4*

The root consists of several very long and thick fibres.

From these rise also clusters of leaves and side-shoots: these last are long and slender; and, as they spread every way from the central root, they send up also tufts of leaves, and, downwards, roots like the first.

The leaves rise ten or twelve together, and are supported on long, thick footstalks of a spongy substance.

They are round, but indented in a heart-fashioned manner at the insertion of the stalk, and are thick, smooth, and of a dead green.

The flowers are large and white: they stand on long, slender footstalks.

The seed vessels are large and rounded; and the seeds are numerous and small.

It is common in ditches swimming on the water. It flowers in July.

C. Bauhine calls it *Nymphaea alba minima*. Others, *The leaf waterlily*, *Frogbit*, and *Morjus ranae*.

It has sometimes double flowers, and is in that condition described by some as a distinct species; but this is only a variety from rich and abundant nourishment. I observed a whole ditch near Thorney in the Isle of Ely covered with this double flowered kind; the water was thick and redish.

The country people make a pultice of the fresh leaves boiled in milk, which they lay to swellings: but nothing is known farther of its virtues. It is not used in the shops.

GENUS II.

WATER SOLDIER.

STRATIOTES.

THE flower is composed of three petals, which are broad: there are two cups, the one is a hulk composed of two membranes, which remains with the seed-vessel; the other is formed of a single leaf, divided into three segments, and falls off with the flower: the seed-vessel is oval, but marked with six edges, and is divided within into six cells, and contains numerous seeds.

Linnaeus places this among the *polyandria hexagynia*; the threads being numerous, and the styles from the rudiment of the capsule six, answering to the six separate cells or divisions in the fruit: the seeds are crooked.

Common Water Soldier. *Stratiotes vulgaris.* *Note 20.4*

The root is composed of several long, thick, white fibres with tufted ends: they are naked from the top to the bottom but just at the extremity they have several small, short filaments, which spread every way.

From this root rise numerous leaves of a singular figure: they are long and narrow, thickest and broadest at the base, and sharp at the point: they are fleshy, firm, of a deep green colour, and armed with slight prickles along the edges.

The stalks rise among these, and are naked, round, thick, and of a pale green.

The flowers are large and white, with a tuft of yellow threads in the centre.

The seed-vessel is large, and the seeds are long, crooked, and, as it were, winged.

It is common in the fen countries, the Isle of Ely, and elsewhere; and flowers in July.

It swims upon the water, or is sometimes half way buried in it; and, though the roots are considerably long, they rarely reach the bottom.

C. Bauhine calls it *Aloe palustris*. Others, *Aizoon palustre*, and *Militaris aizoides*, and *Alloides*.

Nothing is known of a certainty of its virtues; but the old women use it externally as cooling and repellent.

The END of the SEVENTH CLASS.

THE flower is composed of four large, broad, petals: the cup is a hulk, composed of two oval leaves: the seed-vessel is crowned with a top, under which there are several small openings; and the seeds are numerous.

Linnaeus places this among the *polyandria monogynia*, the filaments in the flower being numerous, and fixed to the receptacle, and the rudiment of the fruit single, and with a single top, without any style.

No 14.

THE

BRITISH HERBAL.

CLASS VIII.

Plants whose flower is composed of FOUR PETALS, and is succeeded by a SINGLE REGULAR CAPSULE.

THESE are plants as evidently allied to one another, and as evidently distinguished from the rest as those of the preceding class, since nothing can be a plainer classical character than four petals in a flower, and a single capsule succeeding; yet they are dispersed over several parts of the works of Linnaeus, and all the modern writers.

The student, in this method of ours, needs only examine the number of petals and the seed-vessel, to know to what class to refer, or where to look for a plant of this designation: in those he will receive no information on either head from such an observation; but must count the threads in the plaitain, and those in willow-herb, to find where to seek them in his author, and to discover, that one having four belongs to the class of *tetrandia*, and the other having five to that of *pentandria*; while the poppy, because it has them more numerous, and fixed to the receptacle, is to be sought for among the *polyandria*, in a very distant part of the book.

The student will here find all the plants which have four petals, and a single regular capsule; together: but let him observe here the distinction between the capsule and the pod. As these names are distinct in English, so they are in other languages. The Latin writers constantly express one by *capsula*, the other by *siliqua*; and though both are seed-vessels, they are perfectly distinguished.

This is the more needful to be observed here, because there is another great family to be distinguished by having four petals in the flower, and a pod or *siliqua* following.

The distinction will be shewn when we come to treat of that class. What is contained in the present assortment is that family of plants in which the petals are four, and the seed-vessel is a capsule, such as those of the several preceding classes, and not a pod.

SERIES I.

Natives of BRITAIN.

Those of which one or more species are wild in this country.

GENUS I.

POPPY.

PAP AVER.

THE flower is composed of four large, broad, petals: the cup is a hulk, composed of two oval leaves: the seed-vessel is crowned with a top, under which there are several small openings; and the seeds are numerous.

Linnaeus places this among the *polyandria monogynia*, the filaments in the flower being numerous, and fixed to the receptacle, and the rudiment of the fruit single, and with a single top, without any style.

No 14.

O O

DIVI

DIVISION I. BRITISH SPECIES.

1. Red Poppy.

Papaver rhæas. *Herb. 20. 5*

The root is long, white, and slender, and has very few fibres.

The first leaves, which rise immediately from it are large, long, of a pale green, deeply jagged, and without footstalks.

In the centre of these rises the stalk, which is round, weak, of a pale green, and hairy; it is two feet high, tolerably erect, and divided into several branches.

The leaves on it are placed irregularly, and resemble those from the root, but that they are more deeply jagged, and divided at the edges: these also are of a pale green, and hairy, and they and the whole of the plant abound with a yellow bitter juice.

The flowers are very large, and of a bright scarlet, with numerous threads in the centre; on which stand black buttons.

The seed-vessel is small, oblong, and crowned with a flat head: the seeds are very numerous.

It is common in our corn-fields, and flowers in July.

C. Bauhine calls it *Papaver erraticum majus*. Others, *Papaver erraticum*, *Papaver rubrum*, and *Papaver rhæas*.

The flower is sometimes white, and sometimes variegated. We see this a little in nature, and much more so in gardens, where culture renders it very beautiful.

The reader is not to understand by this, that all the beautiful garden *poppies* are produced from this species; for many of them, indeed the greater part, are from the other, next to be described: the smaller, in general, are from this, and they are very beautiful, and very numerous.

2. Wild white Poppy.

Papaver album sylvestre. *Herb. 20. 6*

The root is long, simple, and white, and has few fibres.

The stalk is round, upright, firm, and a yard high: the leaves stand irregularly on it, and are very large, and of a bluish green.

They have no footstalks, but enclose the stalk at the base, and from thence grow smaller to the point: they are notched at the edges, and smooth.

The flowers stand at the tops of the branches, into which the stalk divides at the upper part: they are very large, but of no great beauty: their colour is white, with a faint blush of a deadish purple; and they have large black spots, one at the bottom of each petal.

The seed-vessel is round and large, of a bluish green, and full of irregular, rough, white seeds.

The whole plant is perfectly smooth, and throughout of the same bluish green colour.

It is common wild in Ireland. We see it in uncultivated places sometimes in England; but it seems to have arisen from seeds scattered from some garden. In Ireland it is said to be found far from any house.

3. Black Poppy.

Papaver nigrum. *Herb. 20. 10*

The root is long, slender, and divided: it has few fibres, and is of a whitish colour.

The first leaves are small, and inconsiderable: they are long, narrow, divided deeply at the edges, and have no footstalks.

Among these rises the stalk, which is round, thick, upright, and a foot and a half high.

The leaves stand alternately, and differ greatly from those which rise first from the root: they are large, and have no footstalks: their colour is a blackish green, and they are deeply jagged.

The flower is large; and there usually, in the wild state of the plant, stands only one on the top of the stalk: it is of a deep colour, between blue and black, and has a tuft of threads in the centre.

The seed-vessel is round, and moderately large, and the seeds are numerous, small, and black.

It is found wild in the northern parts of Ireland, far from any place where the seeds could be supposed to be scattered. It flowers in August.

C. Bauhine calls it *Papaver hortense semine nigro*.

Linnaeus considers this only as a variety of the other preceding: but, however they may resemble one another when brought into gardens, from the effect of culture, or the mixture perhaps of their farinae, they are, when in their wild and natural state, perfectly distinct.

Both these are brought into gardens for use and beauty, and the varieties raised from them by culture are innumerable.

The black is not much regarded as a medicine; but the *white poppy*, we have described here in its wild state, is the famous plant, which being properly assisted by culture, affords in this country the *poppy-heads*, of which our syrup of diacodium is made; and in Turkey, and other parts of the East, yields opium.

The plant continues the same in all respects but size when it is thus cultivated; and the greatest variation in this respect is in the head, which in the wild state are not larger than a chestnut, but by culture is equal to a large apple.

The virtues of all these, and those of the several succeeding kinds of *poppies*, are the same; but they enjoy them in a different degree.

They are all soporifick, and of wonderful virtue against pain.

The *black poppy* is supposed to have something poisonous, but altogether without reason. We have shewn that it differs little from the white in form, and it is less different in its virtue: however, the white is in repute, and is most, indeed almost only used.

The flowers of the *red poppy* are gently soporifick, and are peculiarly good in pleurifies: they have been extolled by many as a specifick in that disorder: they are also good in quinseys, and in all disorders of the breast.

Our

Our people are not sufficiently acquainted with their virtues, for they are only kept in the form of a syrup in the shops; and that way cannot be given in a proper dose, because of the quantity of sugar. A strong tincture may be drawn from them in wine, which will better answer the purpose.

The family-medicine called *red surfeit-water* is a tincture of these flowers in spirit, with spices, and other ingredients, and is much preferable to the shop-form of a syrup.

The heads of the *garden poppy*, or *white poppy* cultivated, are gently soporifick, and excellent against pain. What is called *syrup of diacodium* is a very strong decoction of these heads boiled up with sugar; and it contains so much virtue, that half an ounce is an effective dose.

Opium is obtained by wounding and pressing the heads of the same species, cultivated in the same manner in Turkey, and has the greatest virtues: it is the most powerful of almost any known vegetable simple.

It is sovereign against pain; it promotes sweat, and causes sleep. A very small dose is sufficient, and a larger is dangerous.

Laudanum is a tincture of opium, and is more used than the substance; but either should be given with great care, and rarely without the advice of a physician.

There are some who accustom themselves to take opium constantly; and, beginning with small doses, they habituate their constitutions to the medicine, till they can take such as are astonishing. To these it serves as a cordial, enlivening their spirits like wine, or any other strong liquor. This is a general custom in the East.

As the three species already described are the principal of the *poppy* kind in virtue, we have given their uses here; and shall now proceed to the account of the several other species called by different names, though certainly and plainly of this kind.

4. Round rough-headed Poppy.

Papaver capitula rotundo hispido. *Herb. 20. 11*

The root is long, slender, and white, and has a few fibres.

The first leaves are numerous, and beautifully divided into segments: they have long footstalks, and are of a pale green, and considerably hairy: they are doubly pinnated, as it were, each consisting of several pairs of pinnæ on a middle rib, and each of those pinnæ being jagged so deeply on each side, that it appears pinnated again.

The stalk rises in the midst of this tuft, and is round, hairy, upright, branched, and a foot and a half high.

The leaves are numerous, and stand irregularly: they are of the same form with those from the root, but smaller.

The flowers are small in comparison of the preceding kinds, otherwise not little in proportion to the plant: they are of a bright red, and consist each of four oval petals, with numerous threads.

The seed-vessel is roundish, and very rough, being set all over with a kind of bristly hairs: the seeds are numerous, small, roundish, and black.

It is common in corn-fields in many parts of England, and flowers in July:

C. Bauhine calls it *Argemone capitula brevior*. Others, *Argemone vulgaris*.

5. Long rough-headed Poppy.

Papaver capitula hispido longiore. *Herb. 20. 11*

The root is long, slender, white, usually undivided, and furnished with a few fibres.

The first leaves rise in a cluster: they are of a pale green, and hairy, and have short footstalks: they are deeply divided in the pinnated manner; so that they seem composed of several pairs of pinnæ, or smaller leaves, placed on a rib, with an odd one at the end; but they are in reality only so many segments.

The stalks are numerous, round, firm, very much branched, and a foot high.

The leaves on them are few: they stand irregularly, and are like those from the root, but smaller.

The flowers stand at the tops of the branches, and are small, but of a beautiful scarlet colour, with black buttons.

The heads are long, and covered with a kind of soft prickles.

It is common in many parts of England in corn fields, and on ditch-banks, and flowers in June. The flowers very quickly fade and fall off in this and the preceding species.

C. Bauhine calls it *Argemone capitula longiore*; and others follow him.

6. Long smooth-headed yellow Poppy.

Papaver capitula longiore glabro flore luteo. *Herb. 20. 12*

The root is long, slender, white, divided, and full of fibres.

The first leaves rise in a cluster; and are large, and have long footstalks: they are properly of the pinnated kind, and very beautiful, each is composed of three or four pairs of pinnæ, or smaller leaves, set on a middle rib, with an odd one at the end.

The stalks rise in the centre of this tuft; and they are round, upright, weak, and a little hairy.

Their leaves are few; and they stand irregularly, and are like those from the root, but smaller.

The flowers stand at the tops of the stalks, and are large and yellow.

The seed-vessel is long, ribbed, and smooth: the seeds are small and numerous.

It is frequent in Wales wild, upon the moist rocks, and about the borders of rivulets.

C. Bauhine calls it *Papaver erraticum laciniatum flore flavo*. Others, *Argemone lutea Cambro-Britannica*.

7. Long, small-headed red Poppy.

Papaver capitula longiore glabro flore rubro. *Herb. 20. 13*

The root is long, slender, white, and hung with many fibres.

The first leaves are numerous, long, narrow, and deeply jagged; so that they in some degree represent the pinnated kind.

The stalk rises in the centre of these, and is

round, firm, upright, branched, and a foot and a half high.

The leaves stand irregularly on it, and are like those from the root, long, narrow, and deeply jagged: sometimes they stand singly, sometimes two, and sometimes three, rise from the same joint, and this principally at the branching of the stalks.

The flowers are small, and of a pale red, sometimes white.

DIVISION II. FOREIGN SPECIES.

1. Naked-stalked Poppy.

Papaver caulis nudis. *Hel. 20. 14*

The root is long, thick, and furnished with many fibres.

The first leaves are numerous, small, and of a dusky green: they have long, slender footstalks, and are deeply divided at the edges, often quite down to the rib; so that they appear pinnated.

The stalks rise among these; and they are naked, weak, and round; but though they have no leaves, they have a short stiff hair covering them, very thick.

The flowers stand singly, one on the top of every stalk; and they are large and yellow.

The seed-vessel is oblong and rough, and the seeds are numerous and small.

It is a native of Switzerland, and other northern parts of Europe, and flowers in June.

C. Bauhine calls it *Argemone Alpina coriandri folia*.

2. Prickly Poppy.

Papaver spinosum. *Hel. 20. 15*

The root is long and spreading, of a white colour, and full of fibres.

GENUS II.

HORNED POPPY.

GLAUCIUM.

THE flower is large; it stands singly, and consists of four petals, which are spread regularly open: the cup consists of two oval leaves; and the seed-vessel is long, slender, square, and contains only a single cell.

Linnaeus places this among the *polyandria monogynia*; the threads in each flower being numerous, and fixed to the receptacle, and the style from the rudiment of the fruit single.

Mr. Ray joins this to the *poppy*, not allowing it to be a distinct genus; but in this he errs. The form of the capsule is so extremely different from that of the common *poppy*, that it justifies the making it a distinct kind; and this, like all other well established distinctions, tends to render the science more familiar.

Some have distinguished the several small-flowered *poppies* from the others, under the name of *argemone*; but as there is not in nature a sufficient foundation for this distinction, it perplexes instead of clearing.

Linnaeus, who deserves praise for dividing the *glaucium* from the *papaver*, which Mr. Ray omitted to do, lays himself open to censure, by joining the *glaucium* with the *chelidonium majus*, from which it is absolutely distinct, as we shall see in the succeeding genus. So difficult is it in these cases to preserve the right medium.

The seed-vessel is long, and smooth.

This is frequent in the corn-fields of Essex, and flowers in June.

Morison calls it *Papaver laciniato folio capitulo longiore glabro, sive Argemone capitulo longiore glabro*.

The flowers of these several species possess the same virtues with those of the common red *poppy*, but in an inferior degree.

The first leaves are very large, and of a dead green, marked with white veins, and prickly at the edges: they rise in a large cluster, and have no footstalks: they are oblong, broad, and deeply divided at the sides, and terminate in a point.

The stalk is thick, firm, irregularly upright, of a pale green, and also prickly: toward the top it divides into two or three large branches.

The leaves stand irregularly on it, and have no footstalks: they are long, and jagged at the edges, and prickly.

The flowers are large and yellow.

The seed-vessels are oblong and prickly, and the seeds numerous and small.

It is a native of South America, and flowers in July.

C. Bauhine calls it *Papaver spinosum*. Morison, *Papaver spinosum luteum foliis venis albis notatis*.

Both these are of the nature of the other *poppies*; but their virtues have not been particularly regarded.

DIVISION I. BRITISH SPECIES.

1. Yellow Horned Poppy.

Glaucium luteo flore. *Hel. 20. 16*

The root is long, thick, scarce at all divided, and furnished with numerous fibres.

The leaves that rise from it are large, and of a bluish green: they have no footstalks: they are long, and considerably broad; and are very deeply and irregularly indented at the edges.

The stalk is round, thick, smooth, of a whitish or greyish green, and two feet high: it divides into many branches, and supports itself very erect.

The leaves stand irregularly on it, and are large, and like those from the root: they have no footstalk, but surround the stalk at the base; and they are of a pale bluish green colour.

The flowers stand at the tops of the stalks, and are large and yellow.

The seed-vessel is very long and slender, and is crowned at the top: the seeds are numerous and small.

It is not uncommon on our sea coasts; and flowers in June.

C. Bauhine calls it *Papaver corniculatum luteum*. Linnaeus, *Chelidonium pedunculis unifloris*. We, *Yellow horned poppy*.

DIVISION II. FOREIGN SPECIES.

Hairy, red flowered Horned Poppy.

Glaucium hirsutum rubrum. *Hel. 20. 17*

The root is long, thick, and undivided, and has very few fibres.

The first leaves rise in a great, upright tuft; and are long, narrow, hairy, and deeply divided at the edges into flat, broad, obtuse segments: they have no footstalks, and their colour is a dead green.

The stalk is round, naked, very much branched, and of a pale green: this is also very hairy.

2. Purple Horned Poppy.

Glaucium flore violaceo. *Hel. 20. 17*

The root is long, slender, white, and furnished with a few fibres.

The first leaves rise in a little tuft, and are beautifully divided, without footstalks, and of a pale green.

The stalk is round, slender, upright, and a foot or more in height, and also of a pale green.

The leaves stand irregularly on it, and are, like those from the root, divided into numerous fine segments, in a double pinnated manner.

The flowers stand at the tops of the stalks, and are large, and of a deep blue purple, not unlike that of the common violet.

The seed-vessels are long and slender, and the seeds numerous and small.

It is found in cornfields in some parts of England, but is not common. It flowers in August.

C. Bauhine calls it *Papaver corniculatum violaceum*.

We know nothing of certainty concerning the virtues of these plants; but they seem to approach to the *poppy* in that respect, as well as form; their juice being of the same acrid and peculiar bitter taste with theirs.

GENUS III.

CELANDINE.

CHELIDONIUM MAJUS.

THE flowers are small, and stand in clusters: each is composed of four petals, and has a tuft of threads in the centre: the cup is formed of two oval leaves, and splits open: the seed-vessel is long, slender, and square, and is crowned at the top.

Linnaeus places this among his *polyandria monogynia*; the threads in the flower being numerous, and growing to the receptacle; and the style from the rudiment of the fruit being single.

This author does not allow it a distinct genus or name; but joins it, as I have observed before, with the horned *poppy*, under the name of *glaucium*: from this it differs evidently in the size and disposition of the flowers; and these are sufficient characters, in the eye of reason, for a generic distinction, where there are not greater.

Mr. Ray errs more in this case than Linnaeus; he joins this, as well as the last, in one genus with the *poppy*.

Of this genus there are but two known species, and both are natives of Britain.

1. Common great Celandine.

Cbelidonium majus vulgare. *Herb. 21. 1.*

The root is long, thick, and full of a yellow juice; it is frequently divided, and usually has many large fibres.

The first leaves arise in a numerous tuft: they are large, and beautifully pinnated: each is composed of three or four pairs of smaller leaves, placed on a rib, with an odd one at the end.

The stalk is round, weak, branched, and two feet high.

The leaves on it resemble those from the root, and are of a pale green.

The flowers are small, and of a gold yellow: they grow several together on the tops of the stalks; each having its own separate tender footstalk.

The seed-vessels are long slender pods, containing numerous seeds.

The whole plant is full of a deep yellow juice. It is common in waste places, and flowers in June.

C. Bauhine calls it *Cbelidonium majus vulgare*; and the same name is given it by most others.

What is called *small celandine* is a very different plant, described in the first class of this work under its more proper name *pilewort*.

2. Jagged Celandine.

Cbelidonium foliis laciniatis. *Herb. 21. 2.*

The root is long and thick, brown on the surface and yellow within, and full of a yellow juice.

The first leaves are very large: they have long footstalks, and spread into a broad, as well as high tuft: each is composed of about two pairs of smaller, placed on their separate footstalks, on a rib which has an odd one at the end.

The stalk is round, weak, hairy, and of a pale green: it is but moderately erect, and little branched.

The leaves stand irregularly on it, and resemble those from the root; but there are usually

a pair of small leaves, at the base of each larger, which seems complet without them: the pinnae, or small leaves, composing the larger in this species, are very deeply and sharply divided, and hairy.

The flowers are small and yellow: the seed-vessels are long and thick; and the seeds are numerous.

It is common in several parts of England on banks, and flowers in August.

C. Bauhine calls it *Cbelidonium majus foliis quernis*. J. Bauhine, more properly, *Cbelidonium majus folio laciniato*; for the leaves of the common kind more resemble those of the oak than these.

It has been considered by many, and by Mr. Ray among the rest, as no more than a variety of the last species; but it is essentially different: not only the leaves vary, but the flowers are smaller, and the pods are larger.

This and the other both possess the same virtues, but the other, or common great celandine, in the greater degree.

It is an excellent medicine against obstructions of the viscera. It operates both by stool and urine; and is good in the jaundice, and obstructions of the spleen: the root beat up with sugar into a conserve is the best way of giving it for this purpose.

It is also a cordial and sudorific: for this use an infusion is best. The root should be cut into slices, and boiling water poured on it; and this should be drank warm in bed: it promotes perspiration, and throws out any thing to the skin.

The juice is famous in obstructions of the liver.

The juice, used both outwardly and inwardly, is also strongly recommended in disorders of the eyes.

The root, dried and powdered, is a balsamick and subastringent: it is given against bloody fluxes, and in other hæmorrhages: half a dram for a dose.

G E N U S IV.

W I L L O W H E R B.

E P I L O B I U M.

THE flower is composed of four broad petals, with a tuft of threads in the centre: the cup is formed of four oblong, coloured leaves, and falls with the flower: the seed-vessel is very long and slender, rounded and divided within into four cells; and the seeds are hung with a fine downy matter.

Linnaeus places this among the *clandria monogynia*; the threads in each flower being eight, and the style from the rudiment of the fruit single.

The name by which this genus is commonly distinguished in Latin is *lysmachia*; but that having been given to several other genera, as the *loofstrife* and *salicaria*, cannot be retained for this without confusion. That name was originally given to the *yellow willowherb* or *loofstrife*, a genus altogether distinct from this, and described in a preceding class: I have therefore appropriated it to that genus; and for this adopted the name *epilobium*, given by Linnaeus, and in use among most of the modern writers, for the same distinct assortment of plants.

DIVISION I. BRITISH SPECIES.

1. Rosebay Willowherb.

Epilobium floribus speciosis. *Herb. 21. 3.*

This is the most conspicuous and beautiful of all the willowherbs, and is one of the finest of our wild plants.

The root is large, and spreading.

The first leaves rise in a thick tuft, and are long, narrow, and of a beautiful deep green on the upper side, and of a silvery grey underneath: they have no footstalks: they are perfectly even at the edges, and terminate in a sharp point.

In the centre of these rises the stalk, which is round, thick, firm, upright, and five feet high.

The leaves stand irregularly, but very beautifully upon it: they are long, narrow, and even at the edges: they have no footstalks; and they are also of a deep green on the upper side, and a silvery white below.

The flowers are large and beautiful: they stand in a long spike, and are of a fine deep red.

The seed-vessels are long, and the seeds winged with down. It is common in many parts of England, and flowers in June. Near Canewood at Hampstead there is a hedge decorated with it for sixty yards together.

C. Bauhine calls it *Lyfmachia chamænerion dicta latifolia*. Others, *Lyfmachia speciosa*, and *Onagra speciosa*.

2. Broad-leaved, hairy Willowherb.

Epilobium latifolium hirsutum. *Herb. 21. 4.*

The root is composed of numerous fibres, connected to a large head.

The first leaves are long, and moderately broad, indented at the edges, lightly hairy, and of a pale green: they have no footstalks, and rise in a large tuft.

The stalks are numerous, round, redish, and four feet high.

They are thick set with leaves, which are, like those from the root, of a pale greyish green, soft to the touch, oblong, broad, and indented: they stand irregularly, and adhere to the stalk at their base.

The flowers are large, and of a pale red: they grow a few together at the tops of the stalks.

The pods are long, and full of small seeds, with a silvery down among them.

It is common by waters, and flowers in June.

The tops of this plant have a light fragrantcy. The scent has been supposed to resemble that of apples in milk, and the plant is thence called by our common people *codlings and cream*.

C. Bauhine calls it *Lyfmachia filiquosa hirsuta magno flore*. Others, *Lyfmachia filiquosa*.

3. Small-flowered, hairy Willowherb.

Epilobium hirsutum parvo flore. *Herb. 21. 5.*

The root is composed of a small head, from which run numerous large fibres.

The first leaves are oblong, of a dead green, and blunt at the ends.

The stalk is round, erect, robust, considerably branched, and two feet or more in height.

The leaves are long, and moderately broad; of a dead green, hairy, not at all indented, and they are fixed to the stalk by their base.

The flowers stand at the tops of the stalks in great numbers, and are small, and of a pale, but lively red.

The seed-vessels are long, and the seeds small and yellow.

It is common in damp places, and flowers in June.

C. Bauhine calls it *Lyfmachia filiquosa hirsuta parvo flore*.

4. Great, smooth Willowherb.

Epilobium glabrum majus. *Herb. 21. 6.*

The root consists of a vast quantity of large and thick fibres spreading every way.

The first leaves are broad, short, indented, and sharp-pointed, and of a dead green.

The stalk is firm, upright, very much branched, and four feet high.

The leaves stand irregularly on it, and are very numerous: they have short footstalks, and are broad, oblong, and sharply serrated; smooth, and of a deep green.

The flowers stand in considerable numbers at the tops of the branches; and, though the plant is so large, they are very small: their colour is a bright red, and they have long, slender footstalks.

The seed-vessels are long, and the seeds small. It is common in damp pastures, and flowers in July.

C. Bauhine calls it *Lyfmachia filiquosa glabra major*. Others, *Lyfmachia campestris*.

5. Narrow-leaved, smooth Willowherb.

Epilobium angustifolium glabrum. *Herb. 21. 7.*

The root is long, slender, and creeping: it runs to a great distance under the surface, and is furnished with many fibres.

The stalks are numerous, round, firm, upright, two foot and a half high, and considerably branched.

The leaves are very numerous: they stand so thick that they frequently cover the stalk for the greatest part of its length: they are long, narrow, smooth, of a deep green, and not at all indented; but they terminate in a sharp point.

The flowers are placed at the tops of the branches, and are large, and of a beautiful bright red.

The seed-vessel is long, and the seeds are surrounded with a great quantity of down.

It is frequent in damp meadows, under hedges, and by the sides of brooks. It flowers in July.

C. Bauhine calls it *Lyfmachia glabra minor*. J. Bauhine, *Lyfmachia levis*.

6. Little, smooth Willowherb.

Epilobium glabrum minus. *Herb. 24. 10*

The root is composed of numerous fibres. The first leaves are long, narrow, and of a pale green; and they rise in a thick tuft without footstalks.

The stalk is single, upright, slender, rarely at all branched, and a foot and half high.

The leaves are considerably long, and very narrow: they are of a pale glossy green, perfectly smooth, and undivided at the edges, and sharp-pointed.

The flowers stand at the tops of the stalk, and are numerous, large, and of a deep red.

The seed-vessels are long and thick.

It is common by rivulets, and flowers in June.

C. Bauhine calls it *Lyfimachia glabra angustifolia*. Others, *Lyfimachia glabra angustifolia minor*.

DIVISION II. FOREIGN SPECIES.

Creeping Willowherb.

Epilobium repens.

The root is small and fibrous. The stalks are round, weak, and slender: they trail upon the ground, and take root as they lie, only part of them approaching toward an erect posture.

The leaves stand regularly in pairs: they are short, broad, and of an oval figure, pointed at the ends, not at all indented at the edges, of a deep green colour, and smooth: those toward the tops of the stalks are smaller and narrower.

7. Round-leaved Willowherb.

Epilobium foliis subrotundis.

The root is small and creeping.

The stalk is round, weak, eight or ten inches high, of a purplish colour, and scarce upright: it is rarely at all branched.

The leaves stand irregularly, and are not very numerous: they are short and roundish, not unlike those of the common origanum, perfectly smooth, and of a deep shining green.

The flowers grow at the top of the stalks, and are small, of a beautiful red, and quickly fall off.

The pods are long and thick, and too heavy for the plant to support perfectly.

The seeds are small and chestnut coloured, and the down about them is soft and silvery.

It is a native of our northern hills, where it grows by waters; and flowers in August.

Ray calls it *Lyfimachia filiquosa glabra minor latifolia*.

The flowers are little, and of a pale red.

The seed-vessels are long, slender, and have no footstalk.

It is common on the mountains of Switzerland, and flowers in May.

Haller calls it *Epilobium foliis ellipticis obtuse lanceolatis totum leve*.

All the species of *epilobium* have the same virtues: they are cooling and astringent. The root carefully dried and powdered is good against bloody fluxes and other hemorrhages; and the fresh juice is of the same virtue.

GENUS V.

SPURGE.

TITHYMALUS.

THE flower is composed of four petals, which are thick, cut irregularly, and unequal: the cup is formed of a single piece divided into four segments; these stand alternately mixed with the petals, and all remain together: the seed-vessel is roundish, and contains three cells, in each of which there is a single, roundish seed.

Linnaeus places this among the *polyandria monogynia*; the threads in each flower being numerous, and fixed to the receptacle, and the style from the rudiment of the capsule single.

This author joins the *spurge* with the *euphorbia* plant, taking away its ancient and received name *tithymalus*, and calling all the species *euphorbia*; for he writes the generical name *euphorbia*.

This is extremely wrong in two respects; in the first place it is a violation of the order of nature, no plants being more unlike than the *euphorbia* and many of the spurges in their manner of growing; and, in the next place, it must create difficulty and confusion: the species of each genus, when kept distinct, are very numerous, and the number is immoderate when they are thus united.

We shall shew, when treating of the *euphorbia*, that its angulated, fleshy stalk is a sufficient distinction; nor, indeed, are the flowers of that and *spurge* perfectly alike, though they do in many things resemble one another. The person who writes for instruction should endeavour to find, not how different genera may be united by some small character they have in common, but by what, and principally by what most obvious marks, they are separated from one another.

DIVI-

DIVISION I. BRITISH SPECIES.

1. Wood Spurge.

Tithymalus characias amygdaloides. *Herb. 21. 9*

The root is composed of a multitude of large fibres, which spread every way.

The stalks are numerous and firm: they are thick, upright, and round, and have a redish bark, and under that a green one: they are a yard high, and not branched, except where they spread at the top for flowering.

The leaves are large and numerous: they are long, narrow, and soft to the touch: they are of a deep green, and a little hairy at the upper side; and of a greyish green, and more hairy underneath; and their middle rib is red toward the base.

The flowers are greenish, small, and very numerous: they stand at the top of the stalks on small, divided branches, which spread in a kind of umbel, and which have, at their insertions and divisions, shorter leaves than those on the stalk: the figure, and disposition of the petals of the flower, form numerous crescents; so that the whole top in flower has a beautiful appearance.

The whole plant is full of a caustick, milky juice.

It is frequent in woods and on heaths, and flowers in June. C. Bauhine calls it *Tithymalus characias amygdaloides*; and almost all who have written since have copied him.

2. Red French Spurge.

Tithymalus characias rubescens. *Herb. 21. 10*

The root is long, thick, and divided into several parts, and furnished with many fibres.

The stalk is round, firm, red, upright, and three feet high.

The leaves are long, narrow, and sharp-pointed: they have short footstalks, and are smooth, of a dead green at first, but afterwards red: they are of a hard, firm substance, and differ as much in that as colour from those of the preceding species.

Toward the top the stalk divides into a vast number of branches, on which stand the flowers in a great umbel: they are small, very numerous, and of so deep a purple that they appear black.

The seed-vessel is very large: the whole plant, when it has stood some time, becomes red.

It is common in France and Germany, and is of late found to be a native of our country. Dr. Plot mentions its being found wild in Staffordshire; and Mr. Ray takes notice of the place, though he suspected it to arise from seeds scattered from a garden: it has since been found on the mountains in the north of Ireland.

It flowers in May. C. Bauhine calls it *Tithymalus characias rubens peregrinus*.

The generality of later authors call it *Tithymalus characias Monspeliensis*, from its frequency about that place.

3. Rough-fruited Spurge.

Tithymalus verrucosus. *Herb. 21. 11*

The root is composed of a small head, and a numerous tuft of fibres.

The stalk is round, slender, upright, not at all branched, and a foot high.

The leaves stand irregularly, and are broad, short, sharp-pointed, smooth, of a pale green, and not at all indented at the edges.

The flowers stand in a small tuft, or umbel, at the top of the plant; and they are little, and of a yellowish green.

The seed-vessel is roundish, large, and rough: it is more conspicuous than in most of the other kinds, and has been supposed to resemble a wart: the seeds are large.

It is found in the northern counties, but is not common.

C. Bauhine calls it *Tithymalus myrsinites fructu verruce simili*.

4. Sea Spurge.

Tithymalus maritimus. *Herb. 21. 12*

The root is very long, and furnished with a few fibres.

The stalks are numerous, thick, round, and a foot and half high: they are perfectly covered with the leaves; so that the plant makes a very singular appearance.

The leaves are oblong, narrow, undivided at the edges, and pointed at the ends: they stand upwards, and are placed, in the manner of scales, one over another.

The flowers stand in a small umbel at the top of the plant, and are little and greenish.

The seed-vessel is large, and the seeds are also large.

The whole plant is perfectly smooth, and of a bluish green colour.

It is common on our sea-coasts, and flowers in June.

C. Bauhine calls it *Tithymalus maritimus*. J. Bauhine, *Tithymalus paralius*; and most of the succeeding authors have taken one or other of these names.

5. Knobby-rooted Spurge.

Tithymalus radice crassa.

The root is large, thick, and tuberous; of a brownish colour, with a tinct of red on the outside, and full of a milky juice.

The stalks are numerous, weak, round, of a pale green, and a foot high.

The leaves are short, very numerous, and of a pale green: they are not at all indented, and they terminate in a rounded end.

The flowers are small and yellowish, and form a kind of umbel at the tops of the branches.

The seed-vessel is large, as are also the seeds:

It is frequent in the cornfields of Ireland; and flowers in August.

Merret calls it *Tithymalus Hibernicus*.

6. Broad-leaved Spurge.

Tithymalus latifolius arvensis.

The root is long, slender, and has a few fibres. The stalk is single, round, upright, firm, and a foot and half high.

The leaves are oblong and broad, perfectly smooth, not at all indented at the edges, and of a pale green.

The flowers stand in a large cluster at the top of the stalk, and are small and green.

The seed-vessel is large, as are also the seeds.

It is found among corn in our southern counties, and flowers in July.

C. Bauhine calls it *Tithymalus arvensis latifolius Germanicus*. J. Bauhine, *Tithymalus platyphyllos fuchii*. Clusius, *Tithymalus peregrinus platyphyllos*.

7. Small long-leaved Spurge.

Tithymalus parvus longifolius.

This is an upright, pretty plant.

The root is small and slender, and has but few fibres.

The stalks are numerous, firm, upright, and of a redish hue near the ground, but of a pale green higher up.

The leaves are long, narrow, and of a yellow green: they have no footstalks, and they are perfectly undivided at the edges.

The flowers stand in a loose kind of umbel at the tops of the stalks, and on small branches rising from the bosoms of the upper leaves: they are small and yellow.

The seed-vessel is small, and the seeds are brown.

It is common in the corn-fields of Kent and some other parts of the kingdom, and flowers in July.

Ray calls it *Tithymalus segetum longifolius*.

8. Little Sea Spurge.

Tithymalus maritimus parvus.

The root is long, and furnished with many fibres.

The stalk is round, single, upright, and about eight inches high.

The leaves are numerous, smaller at the bottom, and larger all the way up the stalk: they have no footstalks, and hang downwards: they are short, and of an inverted oval figure, broadest at the end, and smaller all the way to the base: they are of a whitish green colour, undivided at the edges, and round at the end, with a weak prickles.

The flowers are numerous, and stand in a loose scattered umbel: they are small and yellow.

The seed-vessels are large, and somewhat rough.

It is found on our sea-coasts, and flowers in June.

Ray calls it *Tithymalus maritimus minor Portlandicus*. It was first found by Mr. Stonefreet near Portland toward Devonshire.

9. Dwarf Spurge.

Tithymalus pumilus angustifolius.

The root is small, oblong, and undivided, and has a few fibres.

The stalks are numerous, weak, round, and of a yellowish colour: they lie spread every way upon the ground, and are branched, full of leaves, and usually four or five inches high, sometimes more, often much less.

The leaves are small, oblong, pointed at the ends, and of a pale green.

The flowers stand in a kind of scattered umbels at the tops of the stalks, and at the base of these there are longer and narrower leaves than the others: the flowers themselves are very small, and yellow.

The seed-vessels are also small.

It is common in our cornfields, and flowers in August.

C. Bauhine calls it *Tithymalus frœ esula exigua*. Others, *Tithymalus minimus*.

10. Sun Spurge.

Tithymalus helioscopius.

The root is long, slender, and furnished with a few short fibres.

The stalk is round, upright, single, not at all branched, and ten inches high.

The leaves are numerous, oblong, of an inverted oval figure, and serrated at the edges: they have no footstalk, and are smallest at the base, whence they are broader all the way to the end.

The flowers stand at the top of the stalk, in a broad, spreading umbel: they are of a yellowish green.

The seed-vessels are large, and the seeds are also large.

It is common on garden borders and in other cultivated grounds, and flowers in July.

C. Bauhine calls it *Tithymalus helioscopius*. J. Bauhine, *Tithymalus solifragus*.

11. Little, roundish-leaved Spurge.

Tithymalus parvus foliis subrotundis.

The root is long, slender, and furnished with many fibres.

The stalks are round, upright, of a pale green, and eight inches high.

The leaves are short, roundish, on the lower part of the stalks, and somewhat longer on the upper part, where they resemble those of the sun spurge, but that they are smaller, and not dented at the edges: they are of a pale green, and have no footstalks.

The flowers stand at the tops of the stalks in a kind of loose umbels: they are small, and of a yellowish green.

It is common in garden borders, and other cultivated ground, and flowers in May.

This and the preceding are the two most common kinds we have: they generally grow together, and are distinguished at sight by the leaves being dented in one, and not in the other: this last also is the smaller.

C. Bau.

C. Bauhine calls it *Peplus, frœ Esula rotunda*. Ray, *Tithymalus parvus annuus foliis subrotundis non crenatis*.

12. Branched Sea-Spurge.

Tithymalus maritimus ramosus.

This is a singular species.

The root is long, slender, and undivided.

The stalk is round, weak, six or eight inches high, and very much branched: a great part of the branches usually lie upon the ground, but the main part of the stalk rises tolerably upright.

The leaves are small, broad, short, numerous, and of a yellowish green at first; but, when the plant has stood some time, they are usually redish:

they are broad at the base, where they adhere without any footstalk, and are obtuse at the end. The flowers are small and yellowish at first, but afterward they are redish: they do not grow, as in the others, only at the top of the stalks, but all along the plant, rising with short footstalks from the bosoms of the leaves.

The seed-vessels are large, and marked with three divisions, and the seeds are large and brown.

It is frequent on our sea-coasts, and flowers in May.

C. Bauhine calls it *Tithymalus maritimus folio obuso*. Others, *Peplus*.

When in flower, it is usually throughout of a scarlet-colour.

DIVISION II. FOREIGN SPECIES.

1. Tree-Spurge.

Tithymalus arboreus.

The root is large, and spreading.

The stem is thick, firm, and erect; and the whole plant has very much the appearance of a tree. It grows to five feet in height: the trunk is naked, and from its top, which is nearly at half the height of the entire plant, rise numerous branches: these are slender, upright, and of a redish colour.

The leaves are oblong, narrow, and of a pale green, not at all divided at the edges, sharp at the point, and without footstalks.

The flowers stand at the tops of these in small umbels, and are little and yellow.

The seed-vessels are large, and the seeds brown.

It is a native of Italy, and of the Greek islands, and flowers in July.

C. Bauhine calls it *Tithymalus myrsifolius arboreus*. Others, *Tithymalus arboreus*.

2. Myrtle-Spurge.

Tithymalus myrsinites.

The root is long, divided, and furnished with many fibres.

The stalks are round, thick, and green, or sometimes redish, and lie in great part upon the ground: the flowering branches rise to eight inches high, and make a very pretty appearance: they are slender, upright, and not at all divided or branched.

The leaves are very numerous, thick, and of a bluish green: they have no footstalks, and they resemble the leaves of myrtle: they hang downwards, and they are rough at the edges, and pointed at the end.

The flowers are small and green; but they stand in a large, regular, and beautiful umbel at the tops of the stalks.

The seed-vessel is large, and deeply marked in three places.

It is a native of Italy, and the fourth of France, and flowers in July.

C. Bauhine calls it *Tithymalus myrsinites latifolius*. Others simply *Tithymalus myrsinites*.

2. Round-rooted Spurge.

Tithymalus radice rotunda.

The root is large, and of a regular figure; approaching to round, but resembling the shape of a pear.

The stalks are numerous, round, thick, and usually redish: they are five or six inches high, and seldom perfectly erect, but leaning or bending one way or other.

The leaves are broad, short, and not very numerous: they have no footstalks, and they are smallest at the base, and larger all the way to the other end.

The flowers are small, and green, with a tinge of yellow: they stand in large umbels on the tops of the stalks.

The seed-vessel is large, and marked with three divisions, and the seeds are large.

It is a native of Crete, and flowers in August.

C. Bauhine calls it *Tithymalus tuberosa pyriformi radice*. Others, *Apios*.

4. Pine-Spurge.

Tithymalus foliis angustis acutis.

The root is long, slender, and covered with a redish bark.

The stalk is round, firm, upright, and a foot and a half high.

The leaves stand irregularly, and are large, narrow, and pointed at the end: they are of a bright green colour, and soft to the touch.

The flowers are small and greenish: they stand in a large umbel at the top of the stalk.

The seed-vessel is large, and the seeds are large and brown.

It is common among the wet rocks in France, Spain, and Italy, and flowers in August.

C. Bauhine calls it *Tithymalus foliis pini forte Dioscoridis pithyusa*. Others, *Pithyusa*.

5. Great-fruited Spurge.

Tithymalus fructu magno.

The root is large and spreading.

The stalk is round, thick, hollow, whitish, and tinged, as it were, with brown: it is upright,

right, and, like all the other spurges, full of a milky juice.

The leaves are numerous, long, narrow, and of a pale green: they have no footstalks; they adhere by a narrow base, and stand out horizontally.

The top divides into several branches, forming a very large umbel; and the plant, when in flower, is a yard high.

These upper branches have numerous leaves; but they are unlike the others: they are broad at the base, and smaller to the point; so that they are in some degree of a triangular form.

The flowers are large and yellowish, and the seed-vessels very large, and deeply ribbed.

When they are fully ripe, they burst in the hot sun, and the seeds fly out forcibly.

It is a native of France and Italy. We keep it frequently in gardens. It flowers in July.

C. Bauhine calls it *Lathyrus major*. Others call it *Cataputia major*. Others only *Lathyrus* and *Cataputia*, without the addition of *major*.

The reason of calling this the *greater cataputia* is, that some have described what they call a smaller species; but that differing, according to their own accounts, in nothing but size, is a variety, and not a distinct species.

6. Great Myrtle-Spurge.

Tithymalus myrtifolius perennis. *Pl. 22. 6.*

The root is thick, divided, and perennial.

The stalks are numerous, round, hollow, thick,

and two feet high: they are perfectly erect, and not at all branched.

The leaves are large, oblong, and sharp-pointed, of a blackish green, and drooping.

The flowers are large, and of a greenish yellow: they stand in small umbels.

The seed-vessel is large, and the seeds are blackish.

It is a native of Germany, and flowers in August.

C. Bauhine calls it *Tithymalus myrsinites angustifolius*. Others, *Tithymalus myrtifolius niger*.

All the species of *tithymal*, English and foreign, agree in their qualities. They abound with a hot and acrid juice, which applied outwardly eats away warts, and other excrescences. The bark of the root of the *esula*, and some other kinds, have been at different times received in the shops as medicines; but they are now altogether disused.

Their operation was by vomit and stool; and they did both so violently, that it is with great reason they are banished the shops.

Some country-people have ventured to take small doses of the juice of *spurge*: it operates violently, and is apt to erode and inflame the intestines. If any will venture to give the *esula* bark, it should be corrected, by steeping in vinegar, and afterwards dried and powdered; and mace, and a few grains of gum tragacanth, mixed with it.

GENUS VI.

PLANTAIN.

PLANTAGO.

THE flower consists of four petals, joined at the base: the cup is formed of a single leaf, divided into four parts, and remains with the fruit: the seed-vessel is of an oval form, and the seeds are numerous and small.

Linnaeus places this among the *tetrandria monogynia*; the threads in each flower being four, and the style from the rudiment of the capsule single.

This author joins under the same name some other genera, as they are called by too many, and with one exception, very justly. They erred who made a peculiar genus of the *coronopus* or *bucks-horn plantain*; but Linnaeus is as much in the wrong, when, on the other side, he brings in the *psyllium*, or *seawort*, into the same genus. We shall shew the distinction when treating of *psyllium* in the succeeding part of this class; there being no species of it British. We see in this, as in many other instances, how natural it is in avoiding an error on one side, to commit one on the other. The mark of prudence is to keep the moderate course, and to know where to stop.

DIVISION I. BRITISH SPECIES.

1. Smooth, broad-leaved Plantain.

Plantago latifolia glabra. *Pl. 22. 7.*

The root consists of numerous, thick fibres, joined to a small head.

The leaves rise in a great cluster; and are large, broad, and of a dead green: they are of an oval figure, broadest at the base, smaller to the end, where they terminate obtusely; and they have long, hollow footstalks.

The ribs are very large and conspicuous, and they run lengthwise of the leaves: there are usually seven of them.

The stalks rise among these, and are numerous, round, tough, and a foot high.

They have no leaves on them; but at the tops bear a long, slender spike of flowers.

The flowers are small and inconsiderable: they are of a greenish white, and soon fade.

The seed-vessel is small and oval, and the seeds are numerous and brown.

C. Bauhine calls it *Plantago latifolia sinuata*. Others, *Plantago latifolia vulgaris*. We in English, *Great plantain*, or *Waybread*.

The leaves are usually smooth, and sometimes

lightly sinuated, often waved, and otherwise irregular.

There are also other varieties of this plant, which have been described and figured as particular species. What is called *rose plantain*, is this species with clusters of small leaves growing on the stalk in form of a rose, and is owing to the puncture of an insect, which perverts the course of the juice. The several other varieties of it, and of the other species, as the *besom plantain*, and the rest, are only varieties, rising from the same accident.

2. Rough, broad-leaved Plantain.

Plantago latifolia hirsuta. *Pl. 22. 8.*

The root is composed of numerous, large fibres.

The leaves rise in a thick tuft; and are broad, large, and of a whitish colour: they are of an oval shape, broadest near the base, growing gradually smaller to the end; and their ribs run lengthwise, and are very conspicuous.

The stalks rise among the leaves in considerable number: they are a foot high, of a whitish colour, hairy, and not very firm.

The flowers are small and whitish, and they stand at the tops of the stalks in short and thick spikes, not in long, slender ones, as in the former kind.

It is common in pastures, and flowers in May.

C. Bauhine calls it *Plantago latifolia incana*. Others, *Plantago major incana*. We, *Heavy plantain*, or *Lambs tongue*.

3. Narrow-leaved Plantain.

Plantago angustifolia vulgaris. *Pl. 22. 9.*

The root is thick, short, divided into several parts, and furnished with many fibres.

The leaves are numerous, and have no footstalks: they are long, narrow, and of a deep green, broadest toward the middle, and sharp at the point.

Their ribs run lengthwise, as in the others, and are very large and conspicuous.

The stalks are numerous, tough, upright, naked, striated, and ten inches high.

The flowers are small, and stand at the top of each stalk in a short, thick spike.

The seed-vessels are small and oval, and the seeds very minute and brown.

It is common every where by way-sides, and flowers all summer.

C. Bauhine calls it *Plantago major angustifolia*. Others, *Plantago quinquerivra*. We, *Ribwort plantain*.

It varies extremely in size, according to the degree of nourishment it receives; and hence the common writers have described a larger and smaller kind; but this is only variation from accident, no distinction of species.

This is also liable to the same accidental variations as the broad-leaved kind, from the disturbed current of the juice; and by this its top will be covered with leaves, or its spike variously altered.

These are no more than varieties perfectly accidental; but as they are singular in their kind, they are represented in the annexed plate.

4. Little, annual, broad-leaved Plantain.

Plantago latifolia annua parva.

The root consists of a few fibres.

The leaves are numerous, and spread upon the ground: they are broad and short; they approach to an oval figure, and have very high veins; they are sinuated at the edge, but lightly and irregularly, and terminate in a sharp point.

The stalks are numerous, round, firm, and about three inches high: they have no leaves on them, and are of a pale green.

The flowers stand in long and slender spikes at the top of each stalk.

The seed-vessels are large, and the seeds very small.

It is not uncommon in damp places on heaths; where it is generally overlooked, being considered only as a starved plant of the common kind, or as an accidental variety; but it is truly distinct.

C. Bauhine calls it *Plantago latifolia glabra minor*; and most others describe it under the name of *Plantago minor*; but they confound with this, which is entirely distinct, the accidental variety of the *common plantain*, when only smaller from want of nourishment.

Difference in size alone is no mark of a distinct species; but, joined with others, it assists.

Authors describe also a kind of *hoary plantain*, under the name of the *smaller*. Plukenet calls it *Plantago nostras latifolia minor-incana trinervis*; but this is nothing more than an accidental variety of the *common hoary plantain*, all the parts being the same, though smaller, and the plant rising to its full station in better ground.

5. Sea-Plantain.

Plantago marina. *Pl. 22. 10.*

The root is long, slender, undivided, and furnished with a few fibres.

The leaves are numerous, long, and narrow; they rise in a thick tuft, and stand tolerably upright, only a few of the outermost lying upon the ground. They have no footstalks: they are broadest at the base, narrower all the way to the point, and sometimes a little notched at the edges, but this very irregularly.

The stalks rise among these leaves in great number: they are four or five inches high, and have at their top a spike of flowers very slender, and three or four inches in length; so that the whole height is eight or ten inches: the stalks are naked, and the flowers in the spikes are very small.

The seed-vessels also are small, and oval; and the seeds very minute.

It is common in our salt-marshes, and elsewhere about the sea-coasts, and flowers in June.

C. Bauhine calls it *Plantago maritima major*. Others, *Plantago marina vulgaris*, and *Coronopus marinus*. We, *Sea plantain*, or *Sea bucks-horn plantain*.

6. Bucks-horn Plantain.

Plantago foliis incisis. *Pl. 22. 11.*

The root is long, slender, undivided, and furnished with many fibres.

The leaves are numerous, and very beautiful: they lie upon the ground, and spread themselves out every way from the head of the root, in form of a star: they are long, narrow, and deeply jagged at the edges; the jaggs are so long that they have been supposed to give the leaf some resemblance of the horn of a buck; whence its English name: they are of a pale green, and hairy.

The stalks are numerous, round, slender, and naked.

The flowers are small, but have conspicuous white buttons from their centre.

The seed-vessel is small and oval, and the seed is very minute.

The flowers and seed-vessels stand in short, slender spikes.

It is common in barren places, and flowers in July.

C. Bauhine calls it *Coronopus sylvestris hirsutior*. Others, *Coronopus*, and *Cornu cervinum*, or *Plantago coronopus dicta*. We, in English, *Buckhorn plantain*, and in some places *Star of the earth*: but this last is an improper name, because it has been also given to a very different plant, to be described hereafter, and therefore will create confusion.

7. Little hairy Plantain.

Plantago angustifolia pumila incana.

The root is large, irregular, oblong, and of a brown colour.

The leaves are few, and small: they rise in a little tuft, and are tolerably upright: they have no footstalks: they are hairy, and of a pale green, and are broadest in the middle, and narrower to the point, where they terminate sharply.

The stalk is round, weak, naked, upright, and four inches high.

The flowers are small and white: they stand in a thick, short tuft at the top of the stalk, and quickly fade.

The seed-vessels are oval, small, and smooth, and the seeds are very small and blackish.

It is frequent about the sea-coast of Sussex, and flowers in April.

Ray calls it *Plantago angustifolia minor*.

This little plant is subject, like the others, to the variations of having a divided spike, or a leafy top; and they arise altogether from the same cause, the bitings of insects. This is an accident that we see produce strange appearances in many plants, from the oak to this meanest of the plantain kind.

The various excrescences of the oak, the galls, oak-apples, and the like, are caused only by the puncture of a fly. The rose upon the willow, which is just analogous to this upon the plantain, is also owing to the same cause; and so are innumerable others.

8. Narrow-leaved mountain Plantain.

Plantago Alpina angustifolia. *Alc. 22. 20*

The root is long, slender, and furnished with a few fibres.

The leaves rise from numerous heads, into which the root splits at the crown; and are long, narrow, and of a pale green: they have no footstalks: they are broadest in the middle, and small both at the base and point, where they terminate sharply.

The stalks are few, and very small: they are not more than three inches high, round, slender, and green.

The flowers are small, and of a greenish white: they stand at the tops of the stalks in a small, slender spike.

The seed-vessels are oval, and the seeds very small.

It is common on the Welch mountains, and flowers in April.

C. Bauhine calls it *Plantago Alpina angustifolia*.

9. Hairy grassy-leaved Plantain.

Plantago foliis gramineis hirsutis.

The root is long, slender, white, and furnished with a few threads.

The leaves rise in a considerable tuft; and are small, of a greyish green, and grassy: they are broadest at the base, narrower all the way to the point, and hairy.

The stalks are weak, round, and naked, and support little spikes of flowers.

The flowers themselves are very small and whitish, and the spikes thick, short, and roundish.

The seed-vessel is roundish, and the seeds are small.

It is common on the island of Sheppey, and in other parts about the sea-coasts. It flowers in June.

Ray calls it *Plantago gramineo folio hirsuto minor capitulo rotundiore brevi*.

10. Single-flowered Plantain.

Plantago monanthos. *Alc. 22. 16*

The root is composed of a great number of fibres, which penetrate deep into the ground.

The leaves rise in a large tuft; and they are narrow, long, and grassy; many lie on the ground, and a good number stand up.

Among these rise the stalks: they are very minute, slender, brown, and naked: they are not half an inch high; each sustains a single flower, which is very small and inconsiderable; and from this rise four very long stamina, with large, white buttons.

The seed-vessel is small and oval, and the seeds are very minute.

It is not uncommon in boggy places, though, from its smallness, little regarded. It flowers in June.

This little plant has a variety of long names. Tournefort calls it *Plantago palustris gramineo folio monanthos Parisiensis*. Ray, *Gramen junceum*, *sive holosteum minimum palustre capitulis quatuor longissimis filamentis donatis*.

DIVISION II. FOREIGN SPECIES.

1. Thick spiked Sea-Plantain.

Plantago maritima spicis crassis. *Alc. 22. 21*

The root is long and slender, and is furnished with a few fibres.

The leaves are narrow, hairy, and short, in comparison of many of the former kinds: they are small near the base, broadest toward the end, and sharp-pointed.

The stalks are numerous, round, slender, and hairy: they are four or five inches high, and have leaves on them.

The flowers are placed at the tops of the stalks in a thick spike.

The seed-vessel is large and oval, and the seeds are very small.

It is common on the sea-coasts of Spain, and flowers in May.

C. Bauhine calls it *Holosteum hirsutum albicans majus*. Others, *Plantago Hispanica spica oblonga*.

It is sometimes found very small for want of nourishment, and in that state has been described as a distinct species; but it is merely an accidental variety.

2. Short-stalked Plantain.

Plantago scapo brevi. *Alc. 22. 22*

The root is long, slender, and undivided.

The leaves are numerous, of a greyish green, narrow, and of a grassy shape: they are broadest at the base, and smaller all the way to the point.

The stalks are numerous, and very short: they are not of the length of the leaves, and are of the same greyish colour, and covered with a thick downy hairiness.

The flowers are small and whitish: they are placed in thick, short spikes at the tops of these stalks, and seldom stand upright, usually drooping one way or other.

The seed-vessel is large and oval, and the seeds are very small.

It is common in the Greek islands, and flowers in June.

C. Bauhine calls it *Holosteum, sive Leontopodium Creticum*. Clusius, *Leontopodium Creticum*.

3. Narrowest-leaved Plantain.

Plantago foliis angustissimis. *Alc. 22. 23*

The root is very thick, and divided.

The leaves are extremely numerous, and nar-

rower than any other of the plantain kind: they are long, and lie every way spread about, and frequently are curled, so that they resemble worms, or little serpents; whence the plant has been named *snake-grass*.

The stalks are round, weak, and slender: they have no leaves on them.

The flowers stand at the tops in long, slender spikes, and they are small and inconsiderable.

The seed-vessel is oval and small, the seeds are minute and numerous.

It is a native of Italy, and flowers in August.

C. Bauhine calls it *Holosteum stritissimum folio majus*. Others, *Plantago stritissimum folio*, and *Serpentaria major*.

All the species of plantain possess the same virtues, and they are very considerable. None of them is better than the common broad-leaved kind; therefore with us it would be idle to bring any other into use.

This is astringent, cooling, and healing.

A water is distilled from it; but this is of small value, for these are not virtues that rise in distillation.

A decoction of the entire plant is excellent in disorders of the ureters.

The root, dried and powdered, is to be given half a dram for a dose, and is very serviceable against loosenesses with sharp and bloody stools.

The juice is good against spitting of blood, and against the overflowings of the menes.

The leaves, bruised, and used outwardly, cleanse and heal old ulcers.

These are all the plants with four petals to the flower, and a single regular capsule, of which there are any species native of Britain. It must not appear an omission, that three plants, ascribed in Mr. Ray's Synopsis to this class, are omitted. The first, *pentapterophylon*, has no seed-vessel, but the flower is followed by four naked seeds; the second, *balsamine*, has five petals to the flower; and the third, *hypopitys*, has ten. By what oversight in Mr. Ray these came to be added to the present class, I shall not enquire: it is plain they severally belong to three others; and they will be treated of accordingly in their places in the succeeding part of this work.

S E R I E S II.

Those of which there is no species native of this country.

G E N U S I.

R U E.

R U T A

THE flower is composed of four petals, which are hollow, narrow, and stand open, and it has a tuft of threads in the centre: the cup is small, formed of a single piece, but divided into four segments at the edge, and permanent: the seed vessel is large and single, but composed of four lobes, and lightly divided into four partitions: the seeds are numerous and rough.

Linnaeus places this among the *ostandria monogynia*; the threads in each flower being eight, and the rudiment of the capsule with its style single.

There is sometimes a variation in the uppermost flower of *rue*, it having five instead of four petals; but in that case all the rest of the flowers, wherever so numerous, consist only of four each: in the case of five petals, there are also found ten instead of eight threads in the flower.

This shews the uncertainty of any one part, much more of any small part of a plant, to fix a general character. When it happens that even there is a petal too much in the flower, still the seed vessel shews a difference from all other plants, and is consistent and uniform: this therefore is an essential part in a general character.

1. Common Rue.

Ruta sylvestris. *Herb. 1.*

The root is long and large, divided into many parts, and furnished with numerous fibres.

The stalk is round, and, when the plant has stood some time, it grows hard and woody, and is covered with a greyish bark. At first it is tender and green, and the branches and young shoots continue of that texture and colour: it rises to two or three feet high, sometimes more, and is very much branched.

The leaves are very numerous, of a bluish colour, thick, and of a fleshy substance: they are, properly speaking, doubly pinnated, several pairs of pinnated leaves growing on a middle rib, and each of these being composed of four or five pair of small ones on its rib, with an odd leaf at the end; but they are so numerous, that this disposition is not much regarded: these separate leaves are short, broad, and obtuse.

The flowers stand at the tops of the branches in large tufts, and are small, and of a bright yellow.

The seed-vessel is large, and seems as if composed of four parts, and the seeds are rough.

It is a native of the southern parts of Europe, and flowers in August.

C. Bauhine calls it *Ruta hortensis latifolia*. Others, *Ruta major latifolia*. And we, *Common rue*, and *Garden rue*.

Rue is a plant of a very strong taste and smell, and of very powerful qualities. Rubbed upon the skin, it raises an inflammation, and is used by some in this manner against headaches.

They distil a water from it in the shops, which has little virtue, for the qualities of *rue* are not of that kind which rise in distillation.

There is no better way of giving it than in a conserve made of the fresh tops, beaten up with

sugar. In this form it is excellent against hysterick complaints arising from suppressions of the menses; and taken for a continuance against the epilepsy.

The juice of *rue*, expressed with white wine, and taken in very small doses, is a remedy for that troublesome disease the nightmare.

An infusion of it taken for a continuance of time, is greatly recommended also against disorders of the eyes.

The ancients had an opinion of *rue* as a preserver of chastity, or a preventer of lewd thoughts; but we give no medicines for disorders of the mind.

C. Bauhine describes another kind of *rue*, under the name of *Ruta hortensis altera*; but it is only a variety, not a distinct species: hence Linnaeus, carrying the thought too far, has been led to consider most of the other kinds described by authors to be also varieties: we shall shew by their figures and descriptions that they are sufficiently distinct.

The true botanist should be as careful to preserve the really separate species of plants under their present names, as to explode from that number those which have been called so, but are only varieties. Most have been too lavish on this head; Linnaeus is too confined. The species of plants, according to the generality of authors, taking all they have supposed to be distinct, amount to about sixteen thousand three hundred. Linnaeus would reduce them to less than ten thousand; but a moderate computation will establish them at about twelve thousand four hundred. This is the nearest account of the number of known plants.

2. Sharp-leaved Rue.

Ruta foliis acuminatis. *Herb. 23. 2.*

The root is long, thick, divided, and furnished with numerous fibres.

The stem is thick, round, and firm, and, when old, is covered with a pale brown bark; but the young shoots and twigs are tender and green.

The leaves are numerous, and are of the doubly-pinnated kind, each composed of two or three pairs on a rib, and each of these of several pairs of separate leaves joined to their rib, with an odd one at the end.

The whole plant thus far resembles *common rue*, and is like it shrubby, and three feet high, and very much branched.

The separate leaves shew a manifest difference: they are in the *common rue* short, and roundish or blunt; in this species they are oblong, narrow, and sharp-pointed: their colour is a greyish green, and they are not so fleshy as in the *common rue*.

The flowers stand at the tops of the branches, and are large and yellow.

The seed-vessel is large, and four-cornered, and the seeds are large and rough.

It is a native of the East, and flowers in July.

C. Bauhine calls it *Ruta sylvestris major*. Dodonæus, *Ruta graveolens*.

3. Little five-leaved Rue.

Ruta pumila tenuifolia. *Herb. 23. 2.*

The root is long, thick, divided, and furnished with numerous fibres.

The first leaves rise separate from the stalk, and lie upon the ground: they are pinnated in a singular manner; each is composed of three or four pairs of pinnæ, with an odd one at the end, set on a slender, naked rib; but these pinnæ are not composed of smaller leaves, as in the species before described, but are deeply and irregularly divided in a pinnated form, into long, narrow segments; so that the whole large leaf has a very beautiful appearance.

The stalks are numerous, weak, and tough: they are a foot and a half high, and have leaves placed irregularly on them, resembling those from the root, and of a pale green.

The flowers stand in tufts at the tops of the stalks, and are small and yellow.

It is a native of Italy, and flowers in June.

C. Bauhine calls it *Ruta sylvestris minor*. The plant called in Latin *barmala*, and by many *wild rue*, is of another genus, to be described hereafter.

G E N U S II.

E U P H O R B I U M.

THE flower consists of four petals: the cup is divided into four segments, and these are placed alternately between each other: the seed vessel is roundish, but marked with three divisions, and contains three cells, in each of which there is a single seed: the body of the plant is thick, fleshy, and angulated.

Linnaeus places this among the *polyandria monogynia*; the filaments being numerous, and growing to the receptacle, and the style from the rudiment of the fruit single.

He joins under this name, as we have shewn before, the *common titbinals* or *spurges*: it is true, that the flowers and seed-vessels agree; but there is enough in the structure of the plants to warrant a distinction.

1. Common Euphorbium.

Euphorbium vulgatum. *Herb. 23. 2.*

The root is large, black, divided into many parts, and hung with large fibres.

The plant rises from this in a singular manner, not with a stalk and leaves, as all those hitherto described, but with several robust, thick, fleshy stems: these are formed into a number of small faces, with so many angles, and are of a deep blackish green: they are as thick as a child's arm at the bottom, somewhat smaller at the top, a foot or more in height, and armed at the edges of all the planes or angles with extremely sharp prickles placed two together.

This is the general face and appearance of the plant, and is all that is with us usually seen of it: there never are any leaves, nor any other stem than these strange pieces.

When it has flowers, they burst out in various parts at the angles or edges, and are of a yellowish green colour; each is succeeded by a single capsule, of a roundish form, but marked in three places with lines, and containing three seeds.

It is a native of Africa, and flowers there in August.

N° 16.

Isnard calls it *Euphorbium polygonum spinosum cerei effigii*. Others simply *Euphorbium*.

If any part of the plant be cut or broken, there flows out a caustick liquor, which presently hardens into a resinous substance, of a burning, fiery taste, and horrible qualities.

The hardened juice of this plant is the drug called *euphorbium*. It was once given as a purge in dropries, and other desperate distempers, but a better practice has rejected it. The operation was by vomit and stool, and both in extremes; and it often inflamed the intestines. We find at present medicines that answer the same purpose, without the danger of these terrible consequences.

Surgeons once used it in the cure of carious bones; but they found it so ungovernable even in that application, that it is now utterly neglected.

The plant here described affords the *euphorbium* of late time brought into the shops; but it was from another of the same genus that the *euphorbium* was obtained in the times of the ancients: the difference of the plant is, however, no more than that of species of the same kind; and that of the drug no more than might be expected in such a case. The *euphorbium* of the ancients

S f

was

of nature in the plants with single plain capsules for the seed; and follow her steps, as she allows more and more numerous petals to the flower in plants so distinguished by the fruit. The last class having contained those which have with a single capsule four petals, the following will comprehend those which have with a single capsule five petals; and from these we shall advance to the consideration of such as have six, or more than six petals, with the same kind of seed-vessel.

These being described, we shall treat of those which have pods with four-leaved flowers, and

8

The END of the EIGHTH CLASS.



CLASS

those which have pods with papilionaceous flowers.

This is the method we have laid down, as most conformable to nature: and thus much we have judged proper, indeed necessary, to say of it here; lest, as the work appears in separate parts, the reader, who cannot till the whole is delivered to him, determine properly of it, should be misled by an opinion founded on parts of it only, and led to suppose that through mistake omitted in this place, which we hope is rightly reserved to another.

BRITISH HERBAL.

CLASS IX.

Plants whose flower consists of FIVE PETALS regular in form and disposition, whose seeds are contained in a SINGLE CAPSULE, and whose leaves grow in pairs.

THIS is a very large and numerous class; nature has perfectly connected together the plants it comprehends, and obviously distinguished them from all others: yet, as in other cases, so in this, the modern method, established solely upon the number of threads, and their disposition in the flower, has separated many of them from the rest, and placed them among others with which they have no natural alliance.

Nature is so uniform, in even her smallest traces, that, in general, these minute parts are disposed alike in plants of the same classes; but not universally. This general conformity of the smaller with the larger parts led Linnæus to imagine that a method might be established on their number and disposition, which would take in the larger, more obvious, and more essential parts, only as subordinate; and, as this would be sure to carry an air of novelty, it was natural to suppose it would please the student, and do honour to the inventor.

Had it proved true that nature was as strict in these smaller as in the larger parts, a method might, as usefully, have been founded on them as on the others: at least, it would have been liable to no other objection but that of being less plain and familiar: but when Linnæus found that, though many of the plants in each natural class thus answered to the characters of his artificial ones, there were several that did not, he should, then have given up the design.

That he did find this is certain; because he has set down innumerable instances of it under the name of exceptions to his generic characters; and he will daily, in his careful attention to the subject, find more: but, probably, he had gone too far to recede, before he discovered that these exceptions were so numerous. It appears to me that he formed his characters of the common plants principally from Tournefort's figures, and those of the more rare, in general from those of Plumier. These figures are excellent, and particularly accurate; but, although generally right in the minutest parts, yet they sometimes vary from nature in them; their authors not having been so careful in these lesser parts as they would have been, if, like Linnæus, they had intended to establish a method upon them.

This seems to have been the foundation of Linnæus's system: and when, in examining the plants themselves, he found they did not exactly answer these figures, and his characters established upon them, he has, with candour equal to his discernment and assiduity, set it down in his succeeding works.

Upon this view of the Linnæan method, the reader will be able to form a proper judgment of it; and not too disadvantageous a one of its author, whose very faults have been accompanied with excellencies.

With respect to the plants of the present class, all that answer the character established in few words, as its distinction, are here brought together.

Mr. Ray, who forms a class of the same kind, his *pentapetalæ vasculiferae*, makes it more comprehensive, for he includes in it all that answer to that name; placing their other distinctions as subordinate; but, as we have set out upon the plan of distinguishing the plants by as succinct assortments as nature admits, we have of these made three classes.

The plants which have five petals in the flower, and a single capsule succeeding, differ so far, that some have these petals regular in their form and disposition, as *Saint John's wort* and *lychnis*; others have them disposed irregularly, as the *violet*. The form and fashion of these flowers differs so much that they may be safely arranged under two classes; and it is so obvious that they will be easily known, and never mistaken: some have also the leaves in all the species in pairs; and some alternately and irregularly; this, though less absolute, yet is an obvious distinction; and, in a useful system, will very well serve as a classical character.

S E R I E S I.

Natives of BRITAIN.

Those of which one or more species are naturally wild in this country.

G E N U S I.

P I N K.

CARYOPHYLLUS.

THE flower consists of five petals, which are regularly displayed, jagged at their broad ends, and very narrow at the base, where they adhere to the receptacle: the cup is long, hollow, divided into five segments at the edge, and surrounded at the base with four little scales, forming, as it were, a smaller cup for it: the seed-vessel is oblong, cylindrick, and covered; and splits in four parts at the top.

Linnæus places this among the *decandria digynia*; the threads in each flower being ten, and the style from the rudiment of the capsule divided into two parts.

I have observed before, that if the author had named his distinctions in this respect, from the rudiment, rather than the styles rising from it, his method would have been more natural: the pink would then have stood among the *monogynia*, to which, beyond a doubt, it naturally belongs; the capsule, which is the true essential female part, being single. Linnæus calls this genus *dianthus*.

DIVISION I. BRITISH SPECIES.

1. Maiden-Pink:

Caryophyllus virginicus. *Pl. DC. 11*

The root is small, white, and creeping.

The stalks are numerous, slender, weak, and spread upon the ground.

They are full of young shoots, and thick covered with leaves: those stalks which bear the flowers rise from these, and grow to five or six inches high, or, in a favourable soil, higher.

The leaves are very narrow, considerably long, and of a pale greyish green: they are small at the base, and pointed at the end.

The flowers are long, and of a bright red: they stand sometimes singly, one only at the top of the stalk: but this is no certain mark; for sometimes there grow two or three together.

The seed-vessel is oblong, and the seeds are small, rough, and black.

It is found wild in our northern counties, and in some other places; and flowers in June. It varies extremely in size according to the accidents attending its growth; so that some have made out of it several species.

Authors call it *Caryophyllus Virginicus*.

2. Broad-leaved Maiden Pink.

Caryophyllus foliis latioribus. *Pl. DC. 12*

The root is long, slender, white, and undivided.

The stalks are numerous, and lie in part upon the ground, but those which support the flowers rise to four or five inches in height.

The leaves are numerous, broad, short, and of a pale green: those which stand toward the upper part of the stalks near the flowers are narrower than the others, and longer; but even these are broader than those of the preceding species.

The flowers are large, and of a beautiful red: one stands at the top of each stalk.

The seed-vessel is long and roundish: the seeds are numerous and rough.

It is found on hills in our northern counties of England, and flowers in June.

Ray calls it *Armeria species flore in summo caule singulari*.

3. Com-

3. Common wild Pink.

Caryophyllus sylvestris vulgaris. *Pl. DC. 13*

The root is of an irregular shape and firm substance; long, divided, brown, and wrinkled on the surface.

The shoots rise in great numbers, and have a multitude of leaves on them: these are very long and narrow, of a greyish green, and of a firm substance.

The stalks are numerous, greyish green, and round: they are jointed at small distances, and branched toward the tops.

The leaves on those are short, narrow, and sharp-pointed: they stand in pairs, as in all the other species, and are broad at the base, and smaller all the way to the end.

The flowers are of a pale red, and jagged at the edges.

The seed-vessel is oblong, and the seeds are large.

It is wild on the barren rocks in our northern counties; and frequently on walls; but there it seems to have owed its origin to scattered seeds from some garden plants: in the other places it is evidently a native.

C. Bauhine calls it *Caryophyllus simplex flore minore pallide rubente*. Many of our garden pinks are varieties from this stock.

4. Deptford Pink.

Caryophyllus barbatus. *Pl. DC. 14*

The root is long, slender, divided, and hung about with fibres.

The first shoots are numerous, upright, and furnished with several pairs of leaves.

The stalk is round, firm, upright, and of a deep green: it is a foot and half high, and jointed at considerable distances.

The leaves are long, narrow, and of a deep green.

The flowers stand at the tops of the stalks, and of numerous young shoots rising from the bosoms of the leaves; and they are clustered together in a kind of bearded husks: they are small, and of a beautiful red.

The seed-vessel is long, and the seeds are large, rough, and brown.

It is common by way-sides in many parts of England; and flowers in June.

C. Bauhine calls it *Caryophyllus barbatus sylvestris*. Others, *Armeria sylvestris*.

5. Proliferous Pink.

Caryophyllus prolifer. *Pl. DC. 15*

The root is long, white, woody, divided, and furnished with many fibres.

The stalk is round, upright, slender, ten inches high, and very much branched.

The leaves are very narrow, long, and sharp-pointed; and they are of a pale green.

The flowers are small, and of a bright red.

They grow at the tops of the stalks in a clustered manner; and the scales at the bottom of the cup exceed the body of it in length.

The seed-vessel is longish, and slender; and the seeds are rough and black.

It is wild in some of our western counties, but not common. It flowers in July.

C. Bauhine calls it *Caryophyllus sylvestris prolifer*; and most others follow him.

DIVISION II. FOREIGN SPECIES.

1. Clove Julyflower.

Caryophyllus flore magno. *Pl. DC. 16*

The root is long, divided into several parts, and hung with many fibres.

The shoots are numerous, and have many long, narrow leaves on them, of a pale green colour, and smooth surface.

The stalk is round, upright, firm, smooth, and frequently jointed: it rises to two feet in height, and is branched toward the top.

The leaves on it stand in pairs, as in the others: they are like those from the root, but broader and shorter.

The flowers are large, and of a deep purple: the petals are broad, and jagged at the edges; and they have a fragrant scent, not unlike that of the clove spice.

It is a native of Italy, and flowers in July.

The varieties that have been raised from this are endless and innumerable. This single flower is the source from which the ingenuity of gardeners has raised that vast and beautiful variety of carnations, which they are still encreasing by the same means.

In its wild state it varies the colour, from the full and rich purple of which we see it in gardens, through all the changes of red down to

absolute white; and from this variation in nature the hint has probably been taken for all those elegant kinds raised by care and culture.

2. Jagged Pink.

Caryophyllus flore dissecto. *Pl. DC. 17*

The root is long, white, divided, and furnished with many fibres.

The first shoots are very numerous, and clustered thick with leaves: these are long, narrow, of a greyish white, and sharp-pointed.

The stalks are many, round, upright, jointed, divided into several branches, and a foot and half high.

The leaves stand in pairs, and are oblong, narrow, and pointed.

The flowers stand at the tops of the stalks and branches, and are large, and beautifully jagged all the way on the edges.

The seed-vessel is long and rounded: the seeds are large and brown.

It is a native of Italy, and flowers in July.

The flowers are commonly white, sometimes red.

C. Bauhine calls it *Caryophyllus flore tenuissime dissecto*.

3. Broad-

3. Broad-leaved Sweetwilliam.

Caryophyllus barbatus latifolius. *Herb. 1771.*

The root is long, thick, white, and divided.

The stalks are numerous, round, jointed, usually crooked from joint to joint; and of a pale green colour.

The leaves stand two at each joint; and they are oblong, broad, and of a fresh green: they sometimes stand obliquely upwards, but for the most part bend down.

The flowers are moderately large, and naturally are white or redish; but culture gives them many variations in this respect: they stand in large tufts at the tops of the stalks: the scales at the bottom of the cup are as long as its hollow body; and the seed-vessels are oblong, and contain numerous dusky seeds.

It is a native of Spain, and flowers in August.

C. Bauhine calls it *Caryophyllus barbatus sylvestris latifolius*.

4. Narrow-leaved Sweetwilliam.

Caryophyllus barbatus angustifolius. *Herb. 1771.*

The root is long, white, slender, and divided.

The stalks are numerous, round, slender, upright, and a foot high.

The leaves stand in pairs, and they are long and narrow, and of a pale green.

The flowers stand at the tops of the stalks, and are numerous, and moderately large.

The seed-vessel is longish, and the seeds are numerous, rough, and black.

It is a native of Italy, and flowers in August.

C. Bauhine calls it *Caryophyllus bortenensis latifolius barbatus*. But its leaves are much narrower than those of the others.

All these species of *caryophyllus* have the same medicinal qualities, and their virtue is principally in the flowers. Those of the purple kind, or what is called the *clove julyflower*, possess them in the greatest degree. They are cordial and cephalick. They are good in faintings, head-achs, and other nervous disorders. We keep a syrup of them in the shops, which is not without virtue, but is loaded with sugar, as is necessary for keeping in that form. The best method of giving them is in a strong tincture in brandy.

G E N U S II.

CAMPION.

LYCHNIS.

THE flower is composed of five petals, with long bases, and usually divided into two or four segments at the rim: the cup is roundish, swelled, and divided at the edge into five segments; and the seed-vessel is single, of an oval figure covered, formed of five valves, and has only one cell.

Linnaeus places this among the *decandria pentagynia*; the filaments in the flower being ten, and the styles rising from the rudiment of the fruit five.

DIVISION I. BRITISH SPECIES.

1. Common Sea Champion.

Lychnis maritima vulgaris. *Herb. 1771.*

This root is long, thick, and furnished with many fibres.

The first shoots are numerous, and clustered with leaves: they are short, and of a greyish green, and hoary.

The stalks are round, smooth, of a greyish green, numerous, a foot and half long, but weak, and not well able to keep themselves upright; often they all lie spread upon the ground; sometimes they all stand erect.

The leaves are oblong, broad at the base, sharp at the point, and of a pale green.

The flowers stand at the tops of the stalks and branches; and are large and white: their cup is swelled, and dented at the edge pretty deeply.

The seed-vessel is large and oval; and the seeds are numerous and roundish.

It is common about our sea-coasts; and flowers in July.

C. Bauhine calls it *Lychnis maritima repens*.

2. Common white Corn Champion.

Lychnis vulgaris alba quæ Beben album vulgo. *Herb. 1771.*

The root is long, white, and thick; and is furnished with many thick fibres.

The stalks are numerous, round, upright, considerably branched, and two feet high.

The leaves stand in pairs, and are large, and of a pale green: they are broad at the base, not at all indented at the edges, and sharp-pointed.

The flowers stand at the tops of the branches, into which the stalk divides, and of those shoots which rise from the bosoms of the upper leaves: they are large and white.

The seed-vessel is oval, and the seeds are large.

It is common in our corn fields, and flowers in August.

C. Bauhine calls it *Lychnis silvestris quæ ben album vulgo*. Others, *Beben album*, and *papever spumeum*. In English it is also called, from that Latin name, *Spatling poppy*, as also *White bottle*, and *White ben*.

A small insect is frequently found upon the leaves

leaves of this plant, covered with a froth of its own raising. This has been imagined to proceed from the plant, and thence it had these fanciful additions to its name; but it is in reality the creature's method of secreting or preserving itself from many insects, to which it would otherwise become an easy prey.

3. Heath-leaved Sea Champion.

Lychnis maritima erice folio. *Herb. 1771.*

The root is long, hard, woody, and furnished with long and tough fibres.

The stalks are numerous, round, weak, procumbent, and jointed: they are naturally of a pale green, but frequently redish.

The leaves are numerous, and placed in pairs: they are very singular in their structure, and have some remote resemblance of those of the common heath.

The flowers grow at the ends of the stalks and branches; and are large, and of a bright red.

The seed-vessels are large and oval; and the seeds are numerous and turgid.

It is found on sandy banks by the sea, and sometimes at considerable distances from it. It flowers in June.

C. Bauhine calls it *Polygonum maritimum minus folio serpylli*; and Parkinson, *Erica supina maritima Anglica*.

Mr. Ray very properly observes that its leaves have not the least resemblance of those of *serpyllum*, nor its flowers of those of *beach*: it is properly a *champion*, though so very different in its aspect from the generality of others, that it is not a wonder those who were accustomed to judge, more by the general appearance of a plant than by an examination of its flowers and seed-vessels, called it by very different and various names.

4. Jagged-flowered Champion.

Lychnis flore laciniato. *Herb. 1771.*

The root is long, thick, divided, and furnished with numerous fibres.

The first shoots are weak and round, usually of a redish colour: they lie upon the ground, and send out roots of their own.

The leaves that rise from these are single, oblong, broadest in the middle, undivided at the edges, and sharp-pointed; and they are commonly of a brown colour.

The stalks are numerous, upright, round, jointed, and two feet high: they are usually of a brownish or purplish colour, and rarely are much branched.

The leaves stand in pairs: they are oblong, narrow, undivided at the edges, and sharp-pointed: and they are of a deep green.

The flowers stand at the tops of the stalks, six or eight together; and they are of a pale red, and are cut into numerous long and slender segments.

The seed-vessel is large and oval: the seeds are large and roundish.

It is common in meadows, and flowers in June.

C. Bauhine calls it *Caryophyllus pratensis laciniato flore simplici, seu flos cuculi*. Others, *Lychnis* N° XVII.

plumaria pratensis. In English we call it *Cuckoo-flower*, *Wild Williams*, and *Ragged Robins*.

It is sometimes found wild with a double flower. Culture easily gives it this advantage, and renders it very beautiful: we have it in this condition frequent in our gardens, and varying with red and white flowers.

5. Wild Champion, called Soapwort.

Lychnis saponaria diſſa. *Herb. 1771.*

The root is composed of a great number of large, thick, and spreading fibres.

The stalks are numerous, round, upright, and two feet and a half high.

They are of a pale green colour, and jointed; and the knobs, or joints, are round, thick, and white.

The leaves are large, and of a beautiful fresh green: they stand in pairs, and have large veins.

The flowers are large, and sometimes redish: they stand in considerable numbers on the tops of the stalks.

The seed-vessel is large and oval; and the seeds are numerous.

It is not uncommon in many of our counties, and thrives best under a damp hedge. It flowers in June.

We sometimes meet with it naturally with a double flower, in which case it is very beautiful.

Linnaeus, who frequently perplexes the student by joining together several genera, which others, with reason, have treated as distinct, here runs to the opposite extrem. He separates *saponaria*, or *soapwort*, from the *lychnis*; but the distinction is not properly that of one genus from another, but of the separate species of the same genus. Ray has followed nature with more care, who joins this with the *lychnis*; and the generality of authors are of the same opinion, ranking it under this genus. We are the more careful to follow Ray rather than Linnaeus in this article, because the latter not only separates the *saponaria* from *lychnis*, but joins with it several other species, the *vaccaria*, *ecymoides*, and others, to be named hereafter.

It is true that the *saponaria* has but two styles upon the capsule, and the other species hitherto described have five; but it must be sufficient to name such a variation in the description of it as a species. We have, in the same manner, kept together the *lychnis*'s, though separated by this author, as in other instances of a like kind.

After describing the *soapwort*, we are here also to mention a particular variety of that plant, described by our English botanists, and preserved in our gardens. This, though no more than we have called it, a variety, yet is so singular that we have added its figure. The two leaves at the knots frequently join into one, which surrounds the stalk in a particular manner; and the flowers vary in the same manner as the leaves; for their five petals unite, and the whole forms a tubular flower.

It was originally found wild in a grove near Lichbarrow in Northamptonshire; but it is now lost there, only the common *soapwort* being found in the place. Probably the roots were all taken up and carried into gardens: they have been

U u there

there propagated; and the plant is common enough among those who love these things. It keeps pretty constant to its hollow-leaved condition, but not with perfect regularity.

6. Wild Campion, called Cockle.

Lychnis segetum nigellastrum dictum. *N. 24. 9.*

The root is long, slender, simple, and furnished with few fibres.

The stalk is upright, round, hairy, scarce at all branched, and a foot and half high.

The leaves grow two at a joint; and they are long, narrow, hairy, not at all indented, and of a pale green.

The flowers stand at the top of the stalk, and of some few shoots rising from the bosoms of the upper leaves: they are large, and of a fine deep red.

The seed-vessel is large, as are also the seeds.

It is common in our corn-fields, and flowers in July.

C. Bauhine calls it *Lychnis segetum major*. Others, *Nigellastrum*, and *Pseudomelantibium*.

7. Common, wild, white Campion.

Lychnis sylvestris alba vulgaris. *N. 24. 9.*

The root is long and thick, and has few fibres.

The first leaves are numerous: they rise in a large, thick, upright tuft, and are oblong, broad, of a fresh green, not indented, and sharp-pointed.

The stalk is round, firm, upright, very much branched toward the top, and two foot high.

The leaves stand in pairs: they are oblong, broad, undivided, and sharp-pointed.

The flowers are large and white; and the cups striated, but not so much swelled as those of the white hen.

The seed-vessel is large, as are also the seeds. It is common in pastures and about hedges. It flowers in July.

C. Bauhine calls it *Lychnis sylvestris alba simplex*. It is sometimes found with the flower naturally double: it frequently owes that advantage to culture, and is thence called the *double white campion*; or, in the gardeners language, *white batchelors buttons*.

8. Common red wild Campion.

Lychnis flore rubella. *N. 24. 10.*

The root is long, slender, and has few fibres. The first shoots are full of leaves; and those are long, broad, and of a deep green.

The stalks are numerous, round, hairy, branched, and weak.

The leaves are placed two at a joint; and they are broad and hairy, and of a fresh green.

The flowers stand at the tops of the branches; and are large, and of a pale red.

The seed-vessels are large and oval; and the seeds also are large.

It is common in damp hedges, and flowers in June.

C. Bauhine calls it *Lychnis sylvestris sive aqua-*

tica purpurea simplex. Others, *Lychnis sylvestris rubello flore*.

This species is taken into gardens, and rendered double by culture; in which state it makes a very beautiful appearance, and is called *red batchelors buttons*; or, by others, *double red campion*.

9. Small flowered Corn Campion.

Lychnis arvensis flore minimo.

The root is small, oblong, white, and furnished with a few fibres.

The stalks are round, hairy, weak, jointed, and of a pale green.

The leaves grow in pairs, and are oblong and narrow: they are hairy also, and of a pale colour.

The flowers are very small, usually white, but sometimes redish.

The seed-vessel is large, as are also the seeds.

It is not uncommon in the corn-fields of Kent and Suffex; and flowers in July.

Ray calls it *Lychnis sylvestris flore albo minimo*. Others, *Lychnis arvensis flore minimo rubente*.

10. White-flowered clammy Campion.

Lychnis viscaria flore albo. *N. 24. 11.*

The root is long, thick, and furnished with a few fibres.

The leaves that first grow from it are oblong, broad, and of a pale green: they rise in a considerable number, and have long footstalks.

The stalks are numerous, slender, upright, round, and jointed.

The leaves grow in pairs, and have long footstalks: they are oblong, broad, not at all indented at the edges, and pointed at the ends.

The flowers grow at the top of the stalk, and on shoots rising from the bosoms of the upper leaves: they are white, and the petals are very deeply divided from the top: they quickly fall off.

The seed-vessel is large, and the seeds are brown.

It is found on ditch banks, and on walls in some parts of the kingdom, but is not common. It flowers in July.

C. Bauhine calls it *Lychnis montana viscaria albo latifolia*.

The tops of the stalks in this plant are clammy, principally just under the flowers, and hence has risen the name of *viscaria* and clammy.

11. Great night-flowering Campion.

Lychnis noctiflora major.

The root is long and thick, and is furnished with many fibres.

The first shoots are numerous, round, firm, and jointed; one or more in the middle usually stands upright; and several others trail upon the ground all round it.

The leaves grow in pairs, and are thick, of a deep green, hairy, not at all dented, and blunt at the ends.

The flowers grow on the tops of the stalks, and of numerous branches that rise from the bosoms of the leaves all the way up the plant: they are

are large and white, and have the petals divided down the middle; so that they seem composed of ten instead of five.

The seed-vessel is large: the seeds are small and blackish.

It is not uncommon in our northern counties on rocks.

It flowers in July. The flowers open after sun-set: at sun-rise next morning they draw together, but after sun-set they open again; so that the plant is in its full bloom only in the night.

The stalks of this plant, just under the flowers, are sometimes a little clammy.

Ray calls it *Lychnis major noctiflora dubrensis perennis*.

12. Red night flowering Campion.

Lychnis noctiflora flore rubello.

The root is long, slender, and has but few fibres.

The first leaves are oblong, broad, of a pale green, not at all indented, and obtuse at the ends.

The stalks are numerous, slender, jointed, and a foot and half high.

The leaves stand in pairs, and are oblong and obtuse.

The flowers stand at the tops of the stalk and branches; and are small, and of a faint, unpleasing red: they are generally shut and look faded in the day-time; but they open at night.

The seed-vessel is oval, and the seeds are small, and of a dark brown.

It is found in the corn-fields of Surry, but not common. It flowers in July.

C. Bauhine calls it *Lychnis noctiflora*. J. Bauhine, *Ocymoides non speciosum*.

13. Red narrow-leaved clammy Campion.

Lychnis viscaria rubra angustifolia. *N. 24. 12.*

The root is long, thick, divided, and often hung with numerous fibres.

The first leaves rise in tufts from several divisions at the head; and they are long, narrow, sharp-pointed, without footstalks, and of a deep but unpleasant green.

The stalk is single, upright, and a foot and half high.

The leaves stand in pairs, and are oblong, and of a fresh and fine green: they are broadest in the middle, undivided at the edges, and sharp-pointed.

The flowers stand in a beautiful and regular cluster at the top of the stalk: they are small, and of a bright red.

The seed-vessel is oval and large; and the seeds are numerous and small.

It is found in Scotland, and in some of our northern counties, on rocks and mountains. It flowers in May.

The tops of the stalks in this species are very clammy; inasmuch that it is common to see flies entangled on them: hence this and other of the *campions* which have this quality are called *catch-flies*.

C. Bauhine calls this *Lychnis sylvestris viscaria angustifolia*. In England it is generally called *German catchfly*.

14. Mossy-flowered clammy Campion.

Lychnis viscaria floribus muscosis. *N. 24. 13.*

The root is long, thick and furnished with many fibres.

The first leaves are very numerous; and they lie spread upon the ground in a regular manner: they have a kind of long footstalks, and they are broad, short, undivided, and obtuse: the footstalks, though commonly called such, are more properly only a continuation of the leaves, in a narrower form, down to the root.

The stalk is round, upright, and of a pale green.

The leaves stand in pairs, and are long, and expand into breadth at the ends: they have young shoots in all their bosoms; so that the plant appears well covered with them.

The flowers stand at the tops of the stalks, and are numerous, but very small; and of a yellowish green: the threads in them are very conspicuous; and the whole have, as C. Bauhine expresses it, a mossy appearance.

The seed-vessel is oval and small; and the seeds are small.

It is common about Newmarket, and in many other parts of England in gravelly soils. It flowers in June.

The tops of the stalks are clammy in this, as in the other last-named species.

C. Bauhine calls it *Lychnis viscaria flore muscosa*. Others, *Sesamoides salamanticum magnum*. J. Bauhine calls it *Ocymoides belliforme sive muscipula muscosa flore*. Some, *Spanish catchfly*.

15. Dwarf mountain Campion.

Lychnis montana minima. *N. 24. 14.*

This is a very singular plant; it is scarce more than an inch in height, but it grows in such clusters that it is very conspicuous; and, when in flower, very beautiful: at other times it may be taken for a tuft of moss, and easily passed over unregarded.

When viewed in the cluster it appears a thick tuft of short, green leaves, with numerous large, red flowers, stuck irregularly among them, and scarce seeming to belong to them: to see the structure of the plant, an entire one must be separated from the cluster.

The root is very long, thick, and irregular in shape: it is brown on the surface, and has a few fibres.

The leaves rise from the head of this root, and are very numerous, short, narrow, sharp-pointed, and of a fresh green.

In the centre of these rises the stalk, on which stands a single flower.

This stalk is round, weak, of a pale green, and often less than an inch in height.

The flower is large, and of a pale but pretty red.

The seed-vessel is oval and large: the seeds are small.

It is common in Wales, and flowers in May and June.

Its smallness has led authors to call it by many names.

J. Bauhine calls it *Muscus Alpinus flore insigni dilute rubente*. Parkinson, *Ocymoides muscosus Alpinus*. Ray and others, *Lychnis Alpina minima*.

16. Broad-

16. Broad leaved, smooth, clammy Campion.

Lychnis viscaria latifolia levis. Pl. 24. 15

The root is long and slender, and has few fibres.

The first leaves rise in a large tuft, and are broad, and of a pale green.

The stalk is round, upright, thick, of a pale green, very little branched, and a foot and half high.

The leaves grow in pairs without footstalks: they adhere to the main stalk by a broad base, and are large, oblong, broadest at the base, smaller to the point, and of a pale green colour, and smooth surface.

The flowers stand in tufts, many together, at the tops of the stalks and branches: they are small, and of a beautiful red: by their number, colour, and clustered manner of growth, though small, they make a very beautiful appearance.

The seed-vessel is little and oval; and the seeds also are small.

It is found in the western counties by the sides of rivers; and flowers in June.

C. Bauhine calls it *Lychnis viscaria purpurea latifolia levis*. J. Bauhine, *Centaurium minus adulterinum*, quibusdam *lychnidis* genus.

DIVISION II. FOREIGN SPECIES.

1. Great scarlet Lychnis.

Lychnis coccinea major. Pl. 24. 17

The root is composed of several thick fibres, divided, and edged with numerous smaller.

The stalks are numerous, thick, round, jointed, and two feet and a half high.

The leaves stand in pairs, and they are large, oblong, and broad: they have no footstalks: they are somewhat hairy, and their colour is a yellowish green.

The flowers stand in thick clusters at the tops of the stalks, and are large, and of a beautiful scarlet.

The seed-vessel is oval, and the seeds are small.

It is a native of the East, and flowers in July.

We have it in gardens, where culture adds greatly to its natural beauty.

C. Bauhine calls it *Lychnis hirsuta flore coccinea major*. Our gardeners, *Scarlet lychnis*.

2. Rose Campion.

Lychnis coronaria rubens. Pl. 24. 17

The root is long, thick, and furnished with many fibres.

The first leaves are numerous, large, oblong, and white.

The stalks are numerous, round, and white also; and they grow to a yard in height: they are jointed, and very much branched.

The leaves stand in pairs, and they are large, white, and woolly.

The flowers stand at the tops of the stalks and branches, and are numerous, and of a beautiful red, very large and handsome.

The seed-vessel is oval, and the seeds are brown.

17. Narrow-leaved Campion, with swollen cups.

Lychnis sylvestris angustifolia caliculis turgidis. Pl. 24. 16

The root is small, oblong, and white; and has a few fibres.

The leaves that rise first from it are long, narrow, and of a deep green; sharp-pointed, and not serrated at the edges.

The stalk is round, upright, of a whitish green, jointed, branched toward the top, and a foot and half high.

The leaves are placed in pairs, and they are long, narrow, and of a pale green: they adhere to the stalk by a broad base, and are sharp-pointed, but not divided at the edges.

The flowers stand at the tops of the stalks, and are large and white; and the cups are large, smooth, and deeply striated.

The seed-vessel is oval, and the seeds are small.

It is found in Kent and Essex, but not common. It flowers in July.

C. Bauhine calls it *Lychnis sylvestris angustifolia caliculis turgidis striatis*.

It is a native of Italy, and flowers in June.

C. Bauhine calls it *Lychnis dioscoridis sativa*.

3. Cow Basil. *Pl. 25. 1**Lychnis foliis perfoliatis calycibus pyramidalis.*

The root is oblong, white, divided, and furnished with a few fibres.

The first leaves are numerous and oblong: they rise without footstalks, and are of a pale green.

The stalk rises in the centre of these, and they soon after fade.

It is two foot high, round, light, hollow, very much branched, of a bluish colour, and dusty.

The leaves are large, oblong, broad at the base, undivided at the edges, and pointed at the end: they are of a pale bluish green colour.

They stand two at a joint, and encompass the stalk in such a manner at the base that it appears to pass through them.

The flowers are very numerous: they stand at the top of the main stalk and branches, and are small, and of a pale red.

Their cup is large and pyramidal: it has five ribs, which are green, and the substance between them whitish.

The seed-vessel is oblong: the seeds are round and black.

It is common in the corn-fields of France and Germany; and flowers in June.

C. Bauhine calls it *Lychnis segetum rubra foliis perfoliatis*. Others call it *Vaccaria*; and in English, *Cow basil*. Linnaeus, who distinguishes the *japonaria* from the *lychnis*, makes this a species of the former.

4. Lobels

4. Lobels Catchfly. *Pl. 25. 2**Lychnis floribus fasciculatis foliis cordatis.*

The root is long, white, woody, not much divided, but furnished with many fibres.

The first leaves are broad and short: they rise without footstalks, and they are few, and quickly fade.

The stalk is round, upright, firm, and jointed: it is a foot and half high, and is of a bluish green colour, except toward the ground, where it is often reddish.

The leaves are oblong, and very broad, and those toward the top of the stalk heart-fashioned: they stand in pairs without footstalks, and surround the stalk: they are smooth, undivided at the edges, and of a bluish green.

The stalks toward the tops are clammy: it is a viscid juice, which exudates near the joints, that occasions this; and flies often are caught in it.

The flowers are small, and of a pale red; but they stand in such large tufts at the tops of the stalks that they make a very conspicuous figure.

Their cups are slender, long, striated, and purple.

The seed-vessel is long, and the seeds are blackish.

It is a native of France and other warmer parts of Europe; and flowers in July.

C. Bauhine calls it *Lychnis viscaria purpurea latifolia levis*. Others, *muscipula Lobelii*. It is kept in gardens, and called *Lobel's catchfly*.

Linnaeus, who separates many of the *lychnis's* under the name of *siene*, places this among that number. Others have called it *Centaurium adulterinum*.

5. Narrow-leaved branched clammy Campion.

Lychnis angustifolia viscosa ramosa. Pl. 25. 3

The root is oblong, thick, divided into a few parts, and furnished with some large fibres: it is of a bluish colour, and rough surface.

The first leaves are long, narrow, and of a dusky green, often in part red: they have no footstalks, and they stand in a thick tuft.

The stalk rises in the centre of this tuft, and is round, slender, upright, hollow, very much branched, jointed, and a foot and half high: the joints are distant, and the stalk is clammy toward the top.

The leaves stand in pairs, and resemble those from the root: they are oblong, narrow, undivided, and sharp pointed: they are broadest in the middle, of a deep green colour, and of a fleshy substance.

The flowers stand at the tops of the stalks, and of the numerous branches: they are small, and of a pale red, and have striated cups: they stand on slender footstalks, and the petals are deeply divided at the ends.

It is a native of Spain, and other warmer parts of Europe; and flowers in July.

C. Bauhine calls it *Lychnis viscosa rubra altera sylvestris*. Others, *Muscipula vulgaris*; and some of the English writers, *Limeswort*.

N^o 17.

6. Shrubby Campion.

Lychnis frutescens. Pl. 25. 4

The root is long, thick, not at all divided, but furnished with many long fibres.

The first leaves are oblong, broad, undivided at the edges, pointed at the ends, and of a greyish green.

The stalks are numerous, hard, and woody, but brittle, and short: they are irregularly jointed, and are not more than ten inches in length.

The leaves stand in pairs, and are broad, short, and without footstalks: they are undivided at the edges, and sharp-pointed; and of a pale green.

The flowers are small, and of a pale flesh colour, often white: the cups are striated and whitish.

The seed-vessel is oblong, and the seeds are numerous and small.

It is a native of Italy, and flowers in July.

C. Bauhine calls it *Lychnis frutescens myrtifolia*. *Ben also similis*. Clusius, *Ocymoidis arboreum sempervirens*. Others, *Lychnis frutescens*.

7. Campion with greenish yellow flowers.

Lychnis floribus flavo virescentibus. Pl. 25. 5

The root is large, divided into many parts, and furnished with numerous fibres.

The first leaves are numerous, oblong, broad, and rounded toward the end, and of a pale green.

The stalk rises in the centre of these, and is round, jointed, upright, firm, and three or four feet high: it is very much branched, and is of a greyish green: toward the top it is covered with a clammy substance, to which insects, and other small things, stick.

The leaves are placed in pairs, and are oblong, broad, not at all divided at the edges, and obtusely pointed.

The flowers stand in clusters at the tops of the branches, and are not large or conspicuous: their colour is a greenish yellow: the cup is oblong and slender.

The seed-vessel is small, and the seeds are little and blackish.

It is a native of the East, and flowers in June.

C. Bauhine calls it *Lychnis auriculi usque facie*; the leaves, before the stalk rises; having very much the appearance of those of some of the *auriculas*. Clusius calls it *Lychnis sylvestris latifolia*.

8. Small-flowered Campion with bloated cups.

Lychnis floribus minoribus calyculis inflatis. Pl. 25. 6

The root is long, thick, single, of a blackish colour, and furnished with numerous fibres.

The first leaves are oblong, large, broad, and of a bluish green: they rise in a vast tuft, and stand all the winter.

The stalks are numerous, stout, upright, not much jointed, and rarely at all branched; and they are three feet high.

They are covered all the way down with a clammy moisture; so that flies stick to them.

The leaves upon the stalks are few and small: they stand in pairs, and are broad, oblong, pointed, and of a pale green.

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The flowers stand at the tops of the stalks in a regular and beautiful manner, and they are small and yellow: they have swollen or bloated cups.

The seed-vessel is small and oblong, and the seeds are little and brown.

It is a native of Crete, and flowers in August.

Alpinus calls it *Viscaria maxima Cretica*; and others borrow the name from him.

Mr. Ray, and others since have suspected this to be the same plant with the preceding, from the resemblance in some points; but this is owing only to the imperfect descriptions.

The whole habit of this species is different from that, and the form of the cups distinguishes them entirely. It is natural to make these mistakes from imperfect descriptions: but those who have seen the plant from the spot cannot be under any difficulty in determining it altogether separately.

Little is known with certainty of the virtues of this numerous genus.

The common white campion is used by the

country people in some places to make an ointment, which they commend for its virtues against hard swellings; and, elsewhere, the leaves of the same species, dried in an oven and powdered, are given children against convulsions.

In Germany they celebrate several of the common kinds as wound-herbs; and with us the red catchfly is said to possess, in common with *scapwort*, a virtue of dispersing grumous blood, and of relieving in bruises external and internal.

The cockle is celebrated also as a wound-herb, but on a different principle. It is said to have great virtue in stopping blood and healing fresh cuts.

It is also used against cutaneous foulnesses in some places, in form of a decoction to wash the parts, or in an ointment.

The root of this species, dried and powdered, stands recommended also greatly against hæmorrhages, and seems worth a trial: the dose should be about fifteen grains.

GENUS III.

CISTUS.

HEATH SUNFLOWER.

THE flower is large and specious; and consists of five broad regularly expanded petals: the cup is composed of five leaves; of these two are smaller than the other three; and it remains with the seed-vessel: this is of a roundish shape, and contains numerous small and roundish seeds.

Linnaeus places this among his *polyandria monogynia*; the filaments in the flower being numerous, and growing to the receptacle; and the style from the rudiment of the fruit being single.

Many authors have distinguished two genera among the plants properly belonging to this, calling the one *helianthemum* and *chamæcistus*, and the other *cistus*; but there is not in nature any certain and sufficient foundation for this distinction; and it is more proper to keep the plants all together, as they evidently agree in the several characters which are proper to establish a genus.

Our English names of *heath sunflower* and *dwarf cistus* are preserved in some writers for the common wild kinds with us; but in general the Latin name of the genus, *cistus*, has got into common use, and has superseded all the English ones.

DIVISION I. BRITISH SPECIES.

1. Common small Cistus.

Cistus procumbens lignosus. H. 25. 7

The root is long, slender, divided into many parts, and furnished with numerous long, tough, brown, and crooked fibres.

The stalks are very numerous: they rise all from one head of the root, and spread themselves every way, so as to form a great roundish tuft.

They are brown, hard, woody, and are a foot or more in length; but they, for the most part, trail upon the ground: they are frequently branched, and of a brown colour.

The leaves are oblong and broad: they are of a dusky green: they stand in pairs, and are placed very thick upon all parts of the stalks: they frequently are turned back, and they have a light hairyness.

The flowers are large, beautiful, and of a gold yellow: they stand on naked, straggling, and crooked shoots that run up from the tops of

the stalks, and each has its separate, slender pedicle: they quickly fall off.

The seed-vessel is of a roundish form, and the seeds are numerous, small, and brown.

It is common on heaths, and by road-sides, in many parts of England; and flowers in July.

C. Bauhine calls it *Chamæcistus vulgaris flore luteo*. Others, *Helianthemum vulgare*. The English writers, *Dwarf cistus*, or *Sunflower*.

2. Cistus with narrow petals.

Cistus procumbens petalis angustis.

The root is long, slender, brown, woody, and divided into many long, crooked parts.

The stalks are numerous, slender, woody, and trailing.

The leaves stand in pairs, and they are oblong, a little hairy, of a pale green on the under side, and of a deep green above; and they are obtuse at the ends.

The flowers stand singly upon slender twigs rising from the tops of the stalks: they are large, and of a gold yellow, and are composed of very narrow petals.

The seed-vessel is roundish, and the seeds are small.

It is a native of our heaths, particularly of Surry; and flowers in August.

Ray calls it *Helianthemum vulgare petalis florum perangustis*: it retains this difference when raised from seed.

3. Hoary Dwarf Cistus.

Cistus pumilus pubescens.

The root is long, brown, slender, and divided.

The stalks are numerous, firm, woody, and short: some of them trail upon the ground, and others rise up; but they are rarely more than three or four inches high: they are of a whitish colour, and somewhat hairy.

The leaves stand in pairs, and they are oblong, broad, and of a greyish colour, whiter on the under part than the upper, and covered with a rough hoaryness.

The flowers are large and yellow: they stand at the tops of the upright stalks, and their bright colour, with the contrast of the white of the stalks and leaves, has a very pretty effect.

The seed-vessel is oblong, and somewhat broad; and the seeds are numerous and small.

It is found in many parts of the northern counties, and flowers in July.

J. Bauhine calls it *Helianthemum alpinum folio pilosello minoris Fuchsii*.

4. Dwarf Cistus with poleymountain leaves.

Cistus humilis polii foliis. H. 25. 10

The root is long, slender, divided into several parts, and hung with tough fibres.

The stalks are many, firm, erect, woody, and very much branched.

The leaves stand in pairs, and they are very numerous; the young shoots are so covered with them that no part of the stalk is to be seen; on the other and larger stalks they are placed at somewhat greater distances.

They are long, narrow, and have no foot-stalks: they are undivided at the edges, pointed at the ends, and of a pale greyish colour.

The flowers stand on slender twigs rising from the upper parts of branches; and they are large, and of a gold yellow.

DIVISION II. FOREIGN SPECIES.

1. White Cistus with narrow leaves.

Cistus albus foliis angustis subtus bisulcatis incanis.

The root is long, slender, brown, and furnished with many long, and tough fibres.

The stalks are numerous, woody, slender, and branched.

They partly lie upon the ground, and partly raise themselves up: they are from eight inches

The seed-vessel is roundish and small; and the seeds are very small.

It is found on some of our heaths, but is not common.

Ray calls it *Chamæcistus montanus polii folio*.

5. Cistus with spotted flowers.

Cistus flore guttato. H. 25. 9

The root is small, slender, hard, oblong, undivided, and furnished with a few fibres.

The first leaves are short, broad, of a faint green, somewhat hairy, and not at all divided at the edges.

The stalk is round, upright, of a pale green, lightly hairy, and not at all branched, till near the top, where there rise several shoots from the bosoms of the leaves for the support of the flowers.

The leaves are short, oblong, considerably broad, and of a dusky green: they stand in pairs: they are undivided at the edges, and pointed at the end, and a little hairy.

The flowers are very large and beautiful: they stand on long footstalks, and are of a pale yellow; but there is on each petal a fine spot, of a blood red.

The seed-vessel is short and swelled: the seeds are numerous and small.

It is a native of Scotland, but not common. It flowers in July.

C. Bauhine calls it *Cistus flore pallido punicante macula insignito*.

It is an annual plant, and seldom rises to more than a foot in height, often it is not above eight inches.

The several species of English *cistus* have all the same virtues; but the most common kind, here first described, possesses them in the greatest degree. As the plant resembles the *lychnis* in its characters, it does also in its qualities, but it possesses them in a more eminent manner.

The roots of the common *cistus*, dried and powdered, are an excellent astringent: they may be given in diarrhas attended with bloody stools, a scruple for a dose, with great safety and success.

The expressed juice of the leaves bruised with red Port-wine is good against spitting of blood.

The Germans esteem it one of the most eminent of their wound-herbs, and call it *golden consound*.

A decoction made with equal parts of the *cistus* roots and *consrey*, and taken for a continuance of time, has been found excellent in the fluxus albus.

to more than a foot in length, and are very thick set with leaves.

These stand in pairs, and are oblong, very narrow, furrowed doubly on the lower side, and a little hoary.

The flowers stand, in the manner of those of our common *Cistus*, on weak, slender twigs, and they are large and white.

The seed-vessel is roundish, and the seeds are numerous, small, and brown.

It is a native of France, and flowers in June.
C. Bauhine calls it *Chamaecistus foliis thymi incanis*; but this is not a good name, for the leaves are longer and narrower than those of thyme.

2. Short-leaved white Cistus.

Cistus flore albo foliis lanceolatis. *Pl. 25. 11*

The root is long, tough, spreading, and full of thick fibres.

The stalks are numerous, firm, woody, and most of them stand erect.

The leaves are not so numerous as on the common kinds: they stand in pairs at distances, and are small, short, of a figure approaching to oval, and sharp-pointed: their colour is a yellowish green, and they are a little hairy.

The flowers stand at the tops of the stalks, and are large and white.

The seed-vessel is roundish, and the seeds are numerous, and of a dusky colour.

This is common in many parts of Germany, and flowers in July.

Tabernamontanus calls it *Helianthemum album Germanicum*; and most of the later writers have copied from him in this respect.

3. Broad-leaved shrub Cistus.

Cistus frutescens foliis latis. *Pl. 25. 12*

The root is large and spreading.

The stem is woody, and covered with a brown bark: it grows to the height of three or four feet, and is very much branched.

The leaves are numerous, large, and beautiful: they stand in pairs, and they have long footstalks: they are of a dead green in summer, and toward autumn they commonly grow redish: they are of a firm substance, and of a glossy surface: their shape is like that of a heart, but that they run out into a longer point.

The flowers stand in little clusters on stalks rising from the bosoms of the upper leaves: they are large, beautiful, and white.

The seed-vessel is small and pointed; and the seeds are numerous and minute.

It is a native of Spain and Portugal; and flowers in August.

The tops of the young shoots have a fine fragrant aromatick smell: but this goes off when the leaves harden.

C. Bauhine calls it *Cistus ledon foliis populi nigrae major*. Clusius, *Cistus ledum latifolium secundum majus*.

4. Narrow-leaved tree Cistus.

Cistus arboreus angustifolius. *Pl. 25. 13*

This is a very elegant species.

The root is large and spreading: the stem is thick, woody, and branched: it grows to five or six feet in height, and usually with a beautiful regularity.

The leaves are very numerous: they stand in pairs, and are long, narrow, and sharp-pointed: they are at first of a pale green, afterwards of a deeper green, and usually toward the end of summer purplish.

The flowers grow on the tops of the branches,

and are very large and beautiful: they are as big as our wild rose, and white; but the buttons on the numerous threads in the centre are yellow; and every petal has a dark, large spot toward the base.

The seed-vessel is large, but the seeds are small: they are roundish, and of a dusky brown.

The young shoots of this plant are for the most part of summer covered with a purple, resinous, and fragrant juice, and may be smelt at a great distance.

It is a native of Spain, and flowers in July.

C. Bauhine calls it *Cistus ladanifera hispanica incana*. Clusius, *Cistus ledon primus angustifolius*. The leaves are sometimes hoary, sometimes smooth; and they are not unfrequently curled at the edges: hence, some have idly made distinctions of three different species of it.

5. Narrow-leaved, small-flowered, shrub Cistus.

Cistus angustifolius floribus minoribus. *Pl. 25. 14*

The root is long, thick, spreading, woody, and covered with a brown bark.

The stem is thick, firm, woody, and four feet high: its bark is purplish, and it is divided into numerous branches.

The leaves stand in pairs, and they are long and very narrow, a little hairy, of a pale green colour, and marked with three large ribs.

The flowers stand on long, slender footstalks, at the tops of the branches.

They are called small, in comparison of those of the former species; but they are large enough, and very beautiful: they are of a pure white, and they have gold yellow buttons on their numerous threads in the centre.

The seed-vessels are small, and are preserved in a hairy cup.

The young shoots of this kind are very fragrant.

It is a native of the south of France; and flowers in August.

C. Bauhine calls it *Cistus ladanifera Monspoliensis*. Clusius calls it *Cistus ledon quintus*; and others distinguish it by his name.

6. Common small Cistus.

Cistus arboreus foliis ovatis hirsutus. *Pl. 25. 15*

The root is large, woody, spreading, and divided: the stem is thick, woody, upright, branched, and three feet high: the bark is of a deep purple, and the twigs are slender: sometimes the whole plant is erect; sometimes the greatest part of the stalks lie upon the ground.

The leaves are short, broad, and of an oval figure: they stand in pairs: they have long footstalks; and they are of a pale greyish green, and hairy both on the upper and underside.

The flowers are very large and beautiful: they stand on long footstalks rising from the bosoms of the leaves, and they are white, sometimes with veins of yellowish, and sometimes with a tinge of yellow throughout.

The seed-vessel is roundish, large, pointed, and a little flattened; and the seeds are large.

It is a native of Italy, and other warmer parts of Europe.

C. Bau-

C. Bauhine calls it *Cistus femina folio salviae*. Others, *Cistus femina*. Our gardeners, *Female cistus*.

7. Great-flowered animal Cistus.

Cistus annuus flore magno. *Pl. 25. 16*

The root is slender, long, and inconspicuous.

The first leaves are oblong, broad, and obtuse; of a pale green, and hairy.

The stalk is single, round, erect, firm, and a foot and half high: it is hairy, and of a pale green.

The leaves stand in pairs at considerable distances: they are oblong, broad, and blunt, of a pale green, and hairy.

The flowers stand at the tops of the stalks, and in the bosoms of the leaves: they are large and white.

The seed-vessel is large, as are also the seeds.

It is a native of Spain and Portugal. This is the only herbaceous *cistus* that approaches to the form of the shrubby kinds; but it agrees so well with them as to shew that all efforts to separate the shrubby and dwarf *cistus* into two genera must be fruitless.

C. Bauhine calls it *Cistus folio salicis*.

8. White hairy long-leaved Cistus.

Cistus frutescens albicans foliis oblongis hirsutis. *Pl. 25. 17*

The root is large and spreading.

The stems are numerous, woody, but weak; three or four feet long, but generally procumbent, and covered with a pale bark: the young twigs are very long and slender, and they are of a whitish colour.

The leaves stand in pairs: they are oblong and narrow; of a greyish green, and hairy.

The flowers stand at the tops of the branches, and they are large and white.

The seed-vessels are large, as are also the seeds.

It is a native of Spain, and flowers in July.

The young shoots of this species are covered with a fine balsamick fragrant resin.

C. Bauhine calls it *Cistus ledon hirsutum*. Clusius, *Cistus ledon quartus*. Others, *Cistus mas hirsutus*.

9. Common male Cistus.

Cistus flore magno rubente. *Pl. 25. 18*

The root is large, spreading, and woody:

The stem is woody, firm, upright, branched, and four feet high: the branches are thick set with leaves, and their bark is of a pale brown.

The leaves are oblong, but of a considerable breadth: they stand in pairs without any footstalks, and they are broadest toward the base, whence they diminish to a point; and are of a greyish green colour, and covered with a woolly matter: they are very soft and tender on the young shoots, but hard and rigid on such as are older.

The flowers stand on slender footstalks at the upper part of the branches, and are very large, and red.

The seed-vessel is roundish, and angulated; and the seeds are large.

It is common in Italy, and flowers in July.

C. Bauhine calls it *Cistus mas folio oblongo incano*. Our gardeners, *Male cistus*.

The plant called *hypocistus*, to be described hereafter in its proper place, grows to the roots of this species, in the same manner as the broomrape grows to the roots of broom in our hilly, barren pastures.

10. Narrow-leaved red Cistus.

Cistus flore rubro magno angustifolius. *Pl. 25. 19*

The root is woody and spreading.

The stem is thick, woody, branched, and four feet high: the bark is of a pale colour, and the wood is brittle.

The leaves stand in pairs, and are very numerous: they are long, narrow, and of a pale green; somewhat hairy, but not woolly, as those of the other species.

The flowers stand on long footstalks rising from the bosoms of the leaves, and are very large, and of a beautiful red.

The seed-vessels are large and ribbed; and the seeds are large.

C. Bauhine calls this *Cistus mas folio oblongo incano*.

It is frequent in the warmer parts of Europe, and common in our gardens.

Ray suspected this to be only a variety of the preceding species, but erroneously.

G E N U S IV.

SAINT JOHN'S WORT.

HYPERICUM.

THE flower consists of five petals, which are equal in size, regularly placed, and expanded: the seed-vessel is roundish, and the seeds are numerous: the cup is divided into five, oval, pointed segments, and remains when the flower is fallen.

Linnaeus places this among the *polyadelphia polyandria*; the threads in the flower being divided into several distinct sets, growing together at their bases, and growing to the receptacle.

The styles, which in the rest of this author's method make a considerable part of the classical character, are here not mentioned; for this plain reason, that their number is too uncertain to be determined. In some species of this plant there are two, in others three, in others five, and in some but one.

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This single instance may serve as a proof that the styles are not at all fit to be received into the number of parts from which a classical division, or even a general character, can be established: if we should allow them but this last and least use, we must here of necessity separate, under different names, and in distinct genera, plants most evidently related to one another, as species of the same genus.

Some have observed these, or other, as light and uncertain distinctions, so far as to separate the *Saint John's wort* in this manner: hence have arisen the distinct general names in Latin of *hypericum*, *ascyrum*, *androsemum*, and some others; and in English, those of *tusjan*, *Saint Peter's wort*, and *Saint John's wort*; all frivolous and idle distinctions, and all tending to create confusion in the science; because the plants are all truly and properly allied.

Linnaeus, who is in general fond enough of establishing new genera, has judged very rightly in this respect: he has named all these subordinate and accidental variations in the styles of the various kinds of *Saint John's wort* as variations only; and has boldly and justly kept all of them under one name, and in one genus. At the same time, he has separated, under the name of *ascyrum*, and referred to a distinct genus, some plants, which, though they have the general aspect of *Saint John's wort*, have only four petals in the flower.

While we give this author the deserved praise, for his arrangement of the *Saint John's worts*, we cannot but censure the place he has assigned them in his work: he has separated them from the cistus, and other plants before described, by five intermediate classes; and, because of this accident of the stamina, or threads, joining in several little clusters, has placed them in the artificial class we have named. This may well be called an artificial class, because nothing in nature countenances it; and it is most evident, by the division of these plants from the others, that it violates her most obvious laws. They agree with the others in the having a flower composed of five petals, and their seeds contained in a single capsule: these are obvious reasons for joining them; and this particular distribution of the stamina is but a very poor one for separating them, and sending the student to look for plants which nature directs him to understand as allied to one another, in the different parts of a work.

DIVISION I. BRITISH SPECIES.

1. Common Saint John's wort.

Hypericum vulgare. *Pl. 26. 1*

The root is long, slender, woody, divided, and spreading.

The stalk is firm, upright, of a pale green colour, edged, and a foot and half high: it is simple toward the bottom, but divides into many branches near the top.

The leaves are oblong, broad, and of a deep green: they stand in pairs at small distances, and are undivided on the edges: when held up against the light they appear full of little holes.

The flowers are large, full of threads, and of a beautiful gold yellow.

The seed-vessel is roundish, and contains numerous small seeds.

The styles from the rudiment of the capsule are three in this plant; and the capsule is divided into three cells.

The yellow threads in this flower, when moistened and bruised upon the hand, stain it red.

It is common by way-sides, and flowers in June.

C. Bauhine calls it *Hypericum vulgare*; and most others have followed him.

The common *Saint John's wort* is celebrated for many virtues, and is not neglected in regular practice. A decoction of it is good to wash ulcers; and an oil, made by infusing the flowers in olive oil, is much recommended against pain, and as a balsam: the flowers give their latent red colour very beautifully to the oil in this preparation.

An infusion of the fresh tops of *Saint John's wort* is good in the jaundice: it operates by urine.

The expressed juice of the fresh tops is good against spitting of blood.

The powder of the tops carefully dried is recommended also against worms, and in the gout, and against tertian and quartan agues.

A tincture of the flowers, made strong in white-wine, is recommended greatly by some against melancholy: but of these qualities we speak with less certainty, though they deserve a fair trial.

2. Small heart-leaved Saint John's wort.

Hypericum folium cordatis.

The root is slender, brown, and furnished with a few fibres.

The stalk is round, smooth, upright, and frequently redish: it has scarce any branches, and is a foot or more in height.

The leaves stand in pairs, but with great spaces between one pair and another: they are small, broad, short, and have no footstalks, but surround the stalk at the base: they are of a heart-fashioned shape, but not much dented at the broad part; and are of a deep green, and firm substance.

The flowers are large, and of a bright yellow. The seed-vessels are large, and the seeds are brownish.

The styles in the flowers of this species are only three; and the seed-vessel is, in the same manner, divided into three cells.

It is common in dry pastures and by way-sides; and flowers in July.

It is a very pretty plant. Tragus has called it thence *Hypericum pulchrum*; and most have copied him. J. Bauhine calls it *Hypericum minus erectum*.

3. Small

3. Small procumbent Saint John's wort.

Hypericum procumbens minus. *Pl. 26. 2*

The root is slender, long, and woody.

The stalks are numerous, and some of them lie upon the ground; others rise tolerably upright: they are four or five inches high, and edged like those of the common *Saint John's wort*, and of a yellowish colour.

The leaves stand in pairs, at moderate distances one pair from another; and they are small, oblong, pointed, and of a faint green.

The flowers are large, and of a bright yellow: they grow on the tops of the stalks, and of their branches and divisions.

The seed-vessel is small, and the seeds are numerous and minute.

The styles in the flower of this species are three, and the seed-vessel is divided into three cells.

It is common in barren pastures, and flowers in July.

C. Bauhine calls it *Hypericum minus supinum*, free *supinum glabrum*. We, *Trailing Saint John's wort*.

4. Broad-leaved hairy Saint John's wort.

Hypericum erectum latifolium hirsutum. *Pl. 26. 3*

The root is long, large, woody, and spreading. The stalk is thick, firm, upright, very little branched, and of a brownish colour.

The leaves stand in pairs; and they are large, oblong, and of a brownish green, and hairy: they are broadest toward the base, and diminish to a point, and they have short footstalks.

The flowers are numerous, large, and of a pale yellow: they stand at the tops of the stalks, and have slender pedicles.

The seed-vessel is large, and the seeds are brown.

The styles are three in the flower of this species, and the seed-vessel is accordingly divided into three cells.

It is common by road-sides, and flowers in August.

C. Bauhine calls it *Androssemum hirsutum*, and J. Bauhine, *Hypericum androssemum distum*. These are very improper names, for there is another species altogether different from this, properly called *tusjan* and *androssemum*, to be described hereafter.

5. Broad-leaved, smooth Saint John's wort.

Hypericum latifolium glabrum. *Pl. 26. 4*

The root is long, divided, crooked, hard, and redish.

The stalk is upright, single, not at all branched or divided, and a foot and a half high, and of a pale, bluish-green colour.

The leaves stand in pairs at considerable distances: they are very large and broad; they have no footstalks, their bases join at the stalk, and they are of a pale bluish green.

The flowers stand at the tops of the stalks on slender pedicles: they are large, and of a very beautiful yellow.

The seed-vessel also is large, and the seeds are small and brown.

The styles in the flower of this species are three, and the seed-vessel is accordingly divided into three cells.

It is not common in England, except in the northern counties; but there are some plants of it in Charlton wood, near Woolwich.

It flowers in August.

C. Bauhine calls it *Ascyron*, free *hypericum bifolium glabrum non perforatum*. Columna, *Androssemum campoclaente*. It is an extremely beautiful plant.

Linnaeus makes this and the former species only varieties of the same plant. He must have been misled by the bad figures of authors; for it is impossible he should have said this, if he had ever seen this species: the other is common.

The leaves in this species are not full of holes, as in the common *Saint John's wort*; but frequently the under-side of them is beautifully dotted with red spots, disposed regularly on the edge.

6. Tusjan. *Pl. 26. 5*

Hypericum maximum androssemum distum.

The root is hard, woody, long, redish, and divided into many parts.

The stalks are numerous, firm, hard, of a pale green, and edged: they are two feet and a half high, and frequently are branched, though sometimes they rise almost single.

The leaves stand in pairs, and are very large: they are broadest at the base, and terminate obtusely: their colour is a dead green in the first part of summer, but frequently the whole plant turns of a blood-red toward autumn.

The flowers stand in clusters at the tops of the stalks: they are large and yellow.

The seed-vessel is of an oval form; and, being soft and juicy, has the appearance of a berry.

It is frequent in many parts of England under shady hedges, and flowers in August.

C. Bauhine calls it *Androssemum maximum frutescens*. Ray, *Hypericum maximum androssemum vulgare distum*.

This species possesses the virtue of a vulnerary in a degree even superior to the common *Saint John's wort*. One of the young leaves wrapped round a cut-finger, or spread evenly over a deep fresh wound, will cure it without any other application.

This I am assured by the Lady of Gen. Oglethorpe, from her repeated experience.

7. Saint Peter's wort. *Pl. 26. 6*

Hypericum caule erecto quadrangulo ascyron distum.

The root is long and spreading: it creeps under the surface, and has a multitude of fibres.

The stalks are numerous, square, upright, seldom at all branched, and about a foot high.

The leaves are placed in pairs at considerable distances, and have no footstalks: they are of an oval figure, and obtuse.

The flowers stand at the tops of the stalks, on separate, slender pedicles, and are of a bright yellow.

The seed-vessels are large, and the seeds minute.

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The styles in the flower of this plant are three, and the feed-vessel is accordingly divided into three cells.

It is common in damp places, and flowers in June.

J. Bauhine calls it *Hypericum ascyron distum caule quadrangulo*. Others, *Ascyron*, and *Ascyron vulgare*.

Its virtues are the same with those of *Saint John's wort*.

8. Woolly Marsh Saint John's wort.

Hypericum supinum villosum palustre.

This is commonly called a species of *Saint Peter's wort*; but I have observed before, that the distinction of that as a genus is idle, and not supported in nature.

DIVISION II. FOREIGN SPECIES.

1. Spanish Saint John's wort. *Plate 26. 7*

Hypericum tomentosum calycibus serratis.

The root is long, slender, brown, and hung with a few fibres.

The stalks are numerous, weak, redish, and seven or eight inches long: they trail upon the ground, and are not branched.

The leaves are placed in pairs: they are of an oval shape, approaching to heart-fashioned, of a greyish white colour, and very hoary.

The flowers are numerous and small: they stand on long and very slender pedicles rising from the tops of the stalks, ten or a dozen together, and they are of a bright yellow: their cup is ferrated, and glandulous.

The feed-vessel is large, and the seeds are very small and brown.

This species has three styles in the flower, and the capsule is divided into three cells.

It is a native of Spain, and flowers in August.

C. Bauhine calls it *Hypericum supinum tomentosum*; but he erroneously makes two species of it, a greater and a lesser. He had seen it larger in Spain, and smaller in France; but there was no other difference.

2. Perfoliate Saint John's wort. *Plate 26. 10*

Hypericum perfoliatum.

The root is composed of a number of thick, black fibres.

The stalk is round, upright, firm, and a foot and a half high: it is usually red toward the bottom, and elsewhere of a pale green.

The leaves are broad, and of a shape approaching to triangular: they meet at the base, and the stalk seems to pass through them: the several pairs are placed at distances with great regularity: they are of a deep green, and of a firm substance; and, when held up to the light, they are found full of holes, in the manner of the common *Saint John's wort*; toward the bottom the leaves are small; they are largest about the middle of the stalk, and grow smaller again to the top.

The flowers stand on long footstalks at the top

The root is small, and spreading.

The stalks are numerous, weak, and procumbent: they are of a whitish colour, and are ten inches or a foot long.

The leaves are placed in pairs, and they are of a roundish figure: they are soft to the touch, white, and covered with a woolly down.

The flowers stand on slender footstalks at the tops of the stalks, and rise from the bosoms of the upper leaves; and they are large, and of a beautiful yellow.

The feed-vessels are roundish, and the seeds minute and brown.

It is not uncommon on rotten, wet, and boggy ground, and flowers in July.

C. Bauhine calls it *Ascyron supinum villosum palustre*.

of the plant; and they are large, and of a beautiful yellow.

The feed-vessel is oval, and the seeds are minute and brown.

This species has three styles in the flower, and the cells of the feed-vessel are three.

It is a native of Italy, and flowers in July.

C. Bauhine calls it *Androsæmum perforatum* & *perfoliatum*. Columna, *Androsæmum alerum apulum*.

3. Clustered-leaved Saint John's wort.

Hypericum foliis numerosis. Plate 26. 9

The root is long, thick, and furnished with numerous fibres.

The stalks are hard, woody, upright, and very thick set with leaves: they are of a redish colour toward the bottom, and of a pale green toward the top.

The leaves are oblong, and very narrow: they do not grow in regular pairs, as in the other species of *Saint John's wort*, but seem to surround the stalk as those of the stellate plants, like the rays of a star: however, they usually grow three together, and the rest are young shoots from the bosoms of these.

The flowers are large, and of a beautiful yellow: they stand at the tops of the stalks, on small, slender pedicles.

The feed-vessel is large and oval, and the seeds are small and brown.

This species has three styles in the flower, and the feed-vessel has three cells.

It is a native of Italy, and flowers in June.

C. Bauhine calls it *Hypericoides coris quibusdam*. Others, *Coris lutea*, and *Coris Matbioli*. Our people call it *Heath Pine*, and *Low Pine*, sometimes *Coris*.

4. Moneywort leaved Saint John's wort.

Hypericum nummularie foliis. Plate 26. 10

The root is small, oblong, crooked, redish, and furnished with many fibres.

The stalks are numerous, weak, and redish: they

they are five or six inches long, and for the most part trail or lie upon the ground.

The leaves stand in pairs, and are of a roundish figure, not unlike those of moneywort, but smaller.

The flowers are very large and beautiful: they are numerous; they stand on slender footstalks at the top of the several stalks, and are of a bright yellow; and their several petals, as well as the segments of the cup, are ferrated.

The feed-vessel is large, and the seeds are small and brown.

The styles in the flower of this species are three, and the cells are three in the capsule.

It is an extremely elegant species.

It is a native of the Pyrenean mountains, where it hangs among the wet rocks. It flowers in July.

C. Bauhine calls it *Hypericum nummularie folio*; and others have for the most part followed him, the leaves speaking the resemblance.

5. Little heath-leaved Saint John's wort.

Hypericum parvum ericoides. Plate 26. 11

This is an extremely singular and pretty little plant.

The root is long, slender, redish, and has many fibres: they are numerous, weak, and very small: they are crowned with leaves, and they send out many short and slender branches.

The leaves are narrow, longish, and harsh to the touch: their colour is a dusky green, and they entirely cover the lower parts of the stalks.

The top of each stalk is naked, or, in other words, there rise from the extremities of these leafy stalks slender twigs which support the flowers.

These are numerous, small, and of a pale yellow.

The feed-vessel is longish and small; and the seeds are very minute, and brown.

There are three styles in the flower, and three cells in the capsule.

It is a native of Spain and Portugal; and flowers in autumn.

Plukenet calls it *Hypericum ericoides minimum foliis cinereis*.

6. Large-flowered Saint John's wort.

Hypericum flore magno. Plate 26. 12

The root is long, slender, divided into several parts, and furnished with many long fibres.

The stalks are numerous, upright, brown, hard, and bitter: they are a foot high, and rarely are at all branched.

The leaves are placed in pairs, and they stand at small distances one pair from another.

They are of a firm substance and deep green colour, and of an oval shape; broadest at the bottom, where they adhere without footstalks; and smaller to the end, where they terminate abruptly.

The flowers are very large and beautiful: they are of a fine yellow, and they stand in considerable numbers on the tops of the stalks.

The feed-vessel is round, and the seeds are small and brown.

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The styles are three in this flower; and the cells three in the capsule.

It is a native of the East, and flowers in July.

C. Bauhine calls it *Ascyron magno flore*. Wheeler, *Hypericum montis Olympi*; a name adopted by most others.

7. Oriental Tutsan.

Hypericum flore et theca maximis.

The root is slender, and spreads under the surface.

The stalks are numerous, weak, and a foot or more in length: they never rise properly erect, nor do they lie upon the ground, but always stand stooping.

The leaves are placed regularly in pairs, and they are very large, of a figure resembling those of the laurel, of a pale green colour, and perfectly even at the edges.

The flowers stand at the tops of the stalk, and are very conspicuous by their size; for they are as large as a rose, and of a very beautiful yellow, and full of threads of the same yellow in the centre.

The feed-vessel is very large, and of a pointed form.

The styles in this plant are five; and the capsule is accordingly divided into five cells.

It is a native of the East, and of some parts of America.

Ray calls it *Androsæmum Constantinopolitanum flore maximo*.

Morison, *Androsæmum flore et theca quinque capsulari omnium maximis*. Our gardeners call it *Tutsan*, *Great Saint John's wort*; and some of them, the *Ground rose*, or the *Yellow rose*.

8. Stinking Saint John's wort. *Plate 26. 13*

Hypericum fetidum flammibus longissimis.

The root is long, thick, divided, and spreading.

The stalk is shrubby, hard, upright, very much branched, covered with a brown bark, and brittle.

The leaves stand in pairs: they are of a pale green, and have no footstalks: they are broad, oblong, and pointed at the ends.

The flowers are large and numerous: they stand at the extremities of the branches: they are of a beautiful yellow; and they are distinguished by a peculiar mark, which is, that the threads are longer than the petals, and stand in a great bush, in manner of a beard.

The feed-vessel is roundish, and pointed: the seeds are brown.

The styles in this flower are five; and the capsule is accordingly divided into five cells.

It is a native of the warmer parts of Europe, and of the East.

C. Bauhine calls it *Androsæmum fetidum capitulis longissimis filamentis donatis*. Dillenius, *Hypericum fetidum frutescens minus*; and Clusius, *Fragium*. Our gardeners call it *Shrub Saint John's wort*, and *Stinking tutsan*; and some, from the threads, *Bearded tutsan*.

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9. Bay-

9. Bay-leaved Saint John's wort. *Hypericum foliis laurinis seminibus alatis.*

The root is long, large, woody, and spreading.

The stem is firm, woody, brittle, and very much branched; and is covered with a pale brown bark.

The leaves are numerous, oblong, and of a pale green: they are delicately serrated at the edges, and obtuse at the ends.

The flowers stand on slender pedicles rising from the extremities of the stalks, and from the bosoms of the upper leaves: they are large and beautiful; and the segments of the cup are rounded and serrated.

The seed-vessels are large, and pointed at the top: the seeds are numerous, large, winged, and brown.

There are five styles in the flower of this species; and the cells in the capsule are also five.

It is a native of Carolina, and flowers in August.

This species has been so much mistaken by authors, that it has been called an *Alcea*. Plukenet has named it *Alcea floridana quinque capsularis laurinis foliis leviter crenatis*; and others have followed him in this long denomination. Later writers have given it a peculiar name, *Lafianthus*: these have thought the little wing that grows to every seed a mark sufficient for establishing a new genus; but nature abhors these innovations. It is evidently an *hypericum*, and agrees in flower and seed-vessel with all those species of this genus which have five styles in the flower, as the *oriental tutsan*, and the rest.

10. Penny's myrtle Cistus. *Hypericum frutescens foliis rugosis.*

Hypericum frutescens foliis rugosis.

The root is large, woody, and spreading.

The stem is woody, and covered with a brown bark: it is very much branched, brittle, and full of a kind of warts, or rough excrescencies, resembling scars, and the remains of injuries; but

they are natural, and the same singularity is preserved in the leaves.

These stand in pairs: they are very numerous, of a rude green, small, oblong, pointed, and in shape resembling those of myrtle; and they are full of the same kind of irregular ridings with those upon the stalks, only smaller.

The flowers grow at the tops of the branches, and they are very large and beautiful: they are of a fine bright yellow colour, and they have the threads very long.

The seed-vessel is roundish, but pointed; and the seeds are large and brown.

The styles in the flower of this species are five; and the cells in the seed-vessel are also five.

This is a species which, like the preceding, has troubled some authors to find its proper place, or generic name. The characters are the same with those of all the *Saint John's worts* which have five styles in the flower; and, accordingly, the best writers have placed it among them.

Magnol calls it *Hypericum frutescens frutescens magno flore*. Van Royen, *Hypericum floribus pentagynis foliis et ramis verrucosis*. The older writers have followed Clusius, who places it among the cistus's, and calls it *Myrtacifolius Pennae*, from the name of Doctor Penny, its first observer; and our gardeners follow these writers, and call it *Penny's cistus*.

We see, by the effect the resemblance of the *cistus* and *hypericum* has had upon the earlier botanists, how extremely improper it must be to separate them, as Linnæus had done, into various parts of his writings. Those plants which could be confounded with one another by the less accurate observers, and which the most just examination shews to be so much allied to one another, should certainly follow one another in the writings of those botanists who form their method upon the laws established by nature.

These foreign species of *Saint John's wort*, in general, possess the same virtues with our own kind. They are all esteemed vulnerary and balsamick.

The *coris* is celebrated also as a diuretick and deobstruent.

G E N U S V.

CHICKWEED.

A L S I N E.

THE flower consists of five petals, which are spread out plain: the seed-vessel is of an oval shape, formed of six valves, but containing only a single cell: the cup is composed of five little, pointed leaves, and remains when the flower is fallen, surrounding the seed-vessel: the seeds are numerous, rounded, and compressed.

Linnæus places this among the *dycandria trigynia*; the filaments or threads being ten in each flower, and the styles from the rudiment of the capsule three.

This author, after he has established the characters of the genus on this foundation, is obliged to acknowledge that they are not always constant, certain, or regular; for that some plants are so luxuriant as to have five styles instead of three; and that in others the threads are so uncertain, frail, and of short duration, that they cannot well be numbered.

This acknowledgement of a variation in the number of the styles strikes at the root of the author's method; for it mingles *alsines*, which he places among the *dycandria trigynia*, with *spergulas* and *cerastiums*, which he arranges among the *dycandria pentagynia*.

This author's genera should be printed, if the reader will admit the allusion, as tradesmen write their bills, errors excepted.

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The name *alsine*, and its English, *chickweed*, have been given by writers to so many plants not at all belonging to this, nor possible to be arranged under any one genus, that the reader is desired to keep in memory the characters on which the genus given under this name is here established: it will prevent a great deal of perplexity, because it will separate those plants, which are distinctly called *alsines*, from the various others which will be here placed in different successive genera.

DIVISION I. BRITISH SPECIES.

1. Common Chickweed.

Alsine vulgaris. *Alsine vulgaris.*

The root is small, white, slender, and furnished with many fibres.

The stalks are numerous, round, green, juicy, and eight inches in length: some of them trail upon the ground, and others rise up.

The leaves are numerous: they are placed in pairs, and have long footstalks: they are broad, and of a figure somewhat approaching to oval: their colour is a fresh green, and their substance soft and tender.

The flowers are numerous, small, and white: they are placed on footstalks rising from the bosoms of the leaves, principally toward the upper part of the stalks; and they have the petals divided pretty deeply at their ends.

The seed-vessel is small and oval: the seeds are brown.

It is common every where about gardens, and where ground has been dug, and flowers the whole summer.

C. Bauhine calls it *Alsine media*. J. Bauhine, *Alsine vulgaris sive morfus gallinae*. Others, *Alsine media*, or *Alsine minor*. Our English names are *Common chickweed*, *Middle chickweed*, and *Lesser chickweed*: of these the first is the most proper.

The plant varies extremely in size and form according to the degree of nourishment.

2. Great water Chickweed

Alsine perennis major. *Alsine perennis major.*

The root is long, slender, and creeping: it runs under the surface, and sends out many tufts of fibres in different places, and numerous stalks.

These are round, upright, slender, of a pale green, and a foot or more in height: they are rarely at all branched.

The leaves stand in pairs at distances from one another; and they are large, oblong, and of a beautiful pale green.

The flowers stand at the tops of the stalks on slender pedicles, and are small and white: the petals are divided so deeply that they appear to consist each of ten rather than five.

The seed-vessel is small and roundish; and the seeds are numerous.

It is common in watery places, and flowers in June.

C. Bauhine calls it *Alsine altissima nemorum*. J. Bauhine, *Alsine major repens perennis*. We Great marsh chickweed.

3. Narrow-leaved water Chickweed.

Alsine aquatica foliis angustioribus. *Alsine aquatica foliis angustioribus.*

The root is composed of many threads.

The stalks are numerous, square, eight inches

high, and of a pale green: they stand tolerably erect, and send out a few branches.

The leaves are oblong and narrow: they stand in pairs, and have no footstalks: they are thin, tender, and of a pale green; broadest in the middle, undivided at the edges, and obtuse at the ends.

The flowers are small and white: they do not grow on the tops of the stalks, but from the bosoms of the leaves, sometimes standing on single and separate footstalks, and sometimes on the summits of little shoots rising from thence: they are composed of five petals, divided so deeply that there appear to be ten of them.

The seed-vessel is small, and the seeds are numerous and minute.

It is common in damp parts of woods; and flowers in July.

C. Bauhine calls it *Alsine aquatica media*; and J. Bauhine, *Alsine longifolia uliginosis proveniens locis*. Our people call it *Tender marsh chickweed*, and *Fountain chickweed*.

4. Broad-leaved mountain Chickweed.

Alsine latifolia flore profunde scisso. *Alsine latifolia flore profunde scisso.*

The root is small, white, and jointed.

The stalk is usually single, and tolerably upright: it is square, of a pale green, and not at all hairy; and it sends out no branches, but at the top divides into several parts.

The leaves are placed in pairs with great regularity: they have long footstalks, and they are large and oblong: they are broadest at the base, waved along the edges, and terminate in a sharp point.

The flowers are large and white: they stand at the tops of those branches into which the stalk divides at the top; and they are moderately large, and of a snow white: each is composed only of five petals, but they are divided to the base so that there appear ten; and these are long, very narrow, and somewhat curled.

The seed-vessel is oval, and the seeds are small and brown.

It is found in our northern counties in damp woods; and flowers in July.

C. Bauhine calls it *Alsine montana latifolia flore laciniato*. Columna, *Alsine bederacea montana maxima*.

5. Small branched Chickweed.

Alsine minor ramosa. *Alsine minor ramosa.*

The root is small and long, furnished with many fibres, and penetrates deep.

The stalks are extremely numerous, and slender: they are four inches high, and of a pale green; and they are so much branched that a single plant of it forms a thick bushy tuft.

The leaves stand in pairs, and are placed at small distances from one another: they are of a dusky green, short, and pointed at the ends.

The flowers are small and white, and they are composed each of five petals, undivided at the tips.

The seed-vessel is oval; and the seeds are very numerous, small, and brown.

It is common on old walls, and flowers in June.

C. Bauhine calls it *Alfine minor multicaulis*. Others, *Alfine minima*.

6. Plantain-leaved Chickweed.

Alfine foliis plantaginis. *Pl. 27. 1*

The root is composed of numerous slender fibres.

The stalks are numerous, weak, tender, and six inches high.

The leaves stand in pairs without footstalks: they are oblong and broad, largest in the middle, pointed at the end, and of a pale green; and they have the ribs running, in the manner of those of plantain leaves, all lengthwise.

This is a very obvious particular, and chiefly characterises the plant.

The flowers rise from the bosoms of the leaves on slender footstalks, or they stand at the tops of the young shoots, which rise from the leaves in great numbers: they are small and white.

The seed-vessel is roundish, and the seeds are small, numerous, kidney-shaped, and brown.

It is a native of our woods, and flowers in July.

C. Bauhine calls it *Alfine plantaginis foliis*. Others have followed him.

The petals of the flower in this species, as in the preceding, are undivided.

Linnaeus makes the division of the petals a general character of *Alfine* or *chickweed*: Mr. Ray did the same before him; but we see in these two plants the error of that determination: they plainly and palpably belong to the same genus with the common chickweed, and we have thus joined them with that, and others of its kind, under the same common name *alfine*: Mr. Ray, separating them on this slight account, has been obliged to place them among the *spurreys*, *spurgulae*, plants with which they have no alliance.

7. Common Stitchwort. *Pl. 27. 2*

Alfine flore majore angustifolia.

The root is slender and creeping: it runs under the surface, and sends out clusters of fibres from many parts.

The stalks are numerous, upright, and slender: they are of a brownish green, harsh, and edged; and toward the upper part have many branches.

They support themselves among bushes, and rise to a foot and half high:

The leaves stand in pairs, and are long, narrow, and sharp-pointed.

The flowers are numerous, snow white, large, and very beautiful: they consist each of five petals divided at the ends; and they stand on slender footstalks growing from the tops of the

branches, and of the upper divisions of the stalks.

The seed-vessels are large and roundish; and the seeds are numerous and small.

It is common under hedges, and flowers in May.

C. Bauhine calls it *Caryophyllus holosteus arvensis glaber flore majore*. Others, *Gramen leucanthemum*. We *Stitchwort*.

8. Small-flowered Stitchwort.

Alfine angustifolia flore minore.

The root is slender and creeping.

The stalks are numerous, straggling, weak, and a foot high.

The leaves are narrow and long, harsh to the touch, and of a bluish green.

The flowers are white and small: they grow at the tops of the stalks, on slender pedicles, and they are very numerous.

They consist each of five petals, divided at the edge; and they have red buttons on the threads: this is a singular circumstance, and distinguishes the plant at sight.

The seed-vessel is roundish, and the seeds are numerous.

It is common under hedges, together with the former; and flowers in June.

C. Bauhine calls it *Caryophyllus holosteus arvensis glaber flore minore*. Others, *Gramen leucanthemum minus*.

9. Low Stitchwort with great flowers.

Alfine angustifolia humilior floribus maximis.

The root is composed of a tuft of fibres, and does not creep under the surface, as in the other.

The stalks are numerous, sharply edged, rigid, harsh to the touch, and firm: they are not much branched, and they are ten inches high: they support themselves very well at this height, and do not need the assistance of bushes, as the common kind.

The leaves are narrow, long, and sharp-pointed: they stand in pairs, and are of a greyish green colour.

The flowers are large and white: they stand at the tops of the branches, and are composed of five petals notched at the top.

The seed-vessel is round, and the seeds are numerous.

It is a native of our fen counties, and flowers in June.

Ray calls it *Caryophyllus holosteus arvensis medius*. Mentzelius, *Caryophyllus holosteus foliis graminis*.

10. Fine-leaved Chickweed.

Alfine tenuifolia.

The root is a tuft of long and slender fibres: the leaves that first rise from it are extremely narrow, and of a pale green: many stalks rise among these, and they then grow yellow, and soon fade.

The stalks are slender, upright, and ten inches high.

They are of a yellowish green, not much branched, and divided at the top into a wide head.

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The leaves are small, oblong, and narrow.

The flowers are small and white: they stand on slender footstalks, and many open together.

The seed-vessel is small, and the seeds are numerous and roundish.

It is not uncommon in Kent and Suffex in dry barren places. It flowers in July.

J. Bauhine calls it *Alfine tenuifolia*; and others have continued in general the name unaltered.

11. Little grassy-leaved Chickweed.

Alfine pusilla foliis graminis flore magno. *Pl. 27. 3*

The root is long, slender, and furnished with numerous small fibres.

The stalks are slender, upright, not at all branched, and about four inches high.

The leaves stand in pairs, at moderate distances, and pointing upwards: they are oblong, narrow, sharp-pointed, and of a fine green; so that they very much resemble ends of small grass leaves.

The flowers are very large, and snow white: two or three stand on the top of the stalk, and they consist each of five large petals, which are not divided at the ends, but terminate in a point.

The seed-vessel is large, and the seeds are numerous, and very minute.

It is common in our northern counties on rocks, and the sides of high hills. It flowers in April.

Ray calls it *Alfine pusilla pulchro flore folio tenuissimo nostras*, *seu Saxifraga pusilla caryophylloides flore albo pulchello*; a name longer than the plant.

12. Clustered-leaved Chickweed. *Pl. 27. 4*

Alfine foliis angustis crebris flore majore.

The root is small and slender, white, and furnished with many fibres.

The stalks are very numerous, slender, ridged, upright, and about five inches high: they are of a pale green, and they send out frequent branches.

The leaves stand very thick: the principal ones are placed in pairs at small distances from one another, and their bosoms are crowded with clusters of others; so that they appear covered with them.

They are narrow, oblong, and sharp-pointed: on the upper parts of the stalks the principal leaves are less distinguishable; and they cover the branches at the joints, as the leaves of heath.

The flowers stand singly at the tops of the branches, and of the principal stalk; and they are very large, and white.

The seed-vessel is small and round; and the seeds are minute and numerous.

It is common in damp places, and flowers in June.

C. Bauhine calls it *Alfine nodosa Germanica*. J. Bauhine, *Arenaria*. The common writers call it *Saxifraga palustris Anglica*; and we, *English marsh Saxifrage*, and *fine-leaved Saxifrage*.

13. Little roundish-leaved Chickweed.

Alfine parva foliis subrotundis.

The root is small and fibrous.

The stalks are numerous, weak, and branched: they are of a pale green, and five inches high in favourable soils, in other places not above three.

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The leaves stand in pairs, and are small and roundish; of a thin, tender substance, and obscure green.

The flowers are small and white.

The seed-vessels are large, and of an oval figure; and the seeds numerous and yellowish, of a rounded figure, but flattened.

It is not uncommon in the dry pastures of Buckinghamshire; and flowers in July.

Ray calls it *Alfine montana minima acini effigie rotundifolia*; and others follow him.

14. Large-fruited sea Chickweed.

Alfine maritima pusilla fructu magno. *Pl. 27. 5*

The root is long, thick, and furnished with a great many fibres.

The stalks are numerous and short: they are spread upon the ground, and so covered with leaves that it is hard to distinguish their form.

The leaves are short and broad, pointed at the end, and of a bluish green.

They stand in pairs, but generally grow the opposite ways; so that they look, upon the whole, to be disposed crosswise.

The flowers are small and white; and the seed-vessels are oval: they are remarkably large for so small a plant, and contain numerous seeds.

It is common on our sea-coasts, and flowers in June.

C. Bauhine calls it *Alfine litoralis portulacae foliis*. Others, *Anthyllis maritima lentifolia*.

15. Procumbent narrow-leaved Chickweed.

Alfine maritima procumbens angustifolia. *Pl. 27. 6*

The root is long, slender, and furnished with many fibres.

The stalks are very numerous, small, weak, and of a pale green: they spread every way upon the ground, and are four inches long, and very much branched.

The leaves are numerous: they stand in pairs, and are full of young ones, and of small shoots of branches, in their bosoms; so that the whole plant is very bushy.

The leaves are short, and narrower than those of the last mentioned species.

The flowers rise from the bosoms of the leaves all the way up the stalks: they are numerous, small, and white.

The seed-vessels also are small; and the seeds minute and numerous.

It is common on our sea coasts, and flowers in June.

C. Bauhine calls it *Anthyllis maritima chamae-syche similis*. Ray, *Alfine maritima supina foliis chamaesicis*. Our people, *Sea knotgrass*, and *Sea chickweed*.

16. Small-flowered water Chickweed.

Alfine palustris flosculis parvis. *Pl. 27. 7*

The root is small, divided, and full of fibres.

The stalks are numerous, small, irregularly branched, and about an inch and half high.

The leaves are placed in pairs: they are oblong, thick, and of a fresh green; obtuse at the ends, and not at all divided at the edges.

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The flowers stand at the tops of the stalks, and are very small, and white: they scarce ever open.

The seed vessel is small, and opens in three parts, and contains three seeds.

It is common in places where water is just dried up; and flowers in June.

Ray calls it *Alfne parva palustris tricocco foliis portulacæ*. Merret, *Alfne floccalis conviventibus*. We, in English, *Blinks*.

17. Round leaved creeping Chickweed.

Alfne pusilla repens foliis rotundis. No. 27. 10

This is a singular and very elegant species.

The root is long, slender, and white: it creeps up under the surface, and sends out tufts of fibres in different places.

The leaves rise in clusters three or four together at small distances, and they stand singly on long and very slender footstalks: from the same spot, where they rise, there grow also small, creep-

ing stalks, which run upon the ground, and send up other clusters of leaves in different places.

The leaves are small, round, and dented at the edges; and they are of a pale green.

The flowers are very small; they stand singly on tender footstalks rising from the bosoms of the leaves; and they are of a pale fleshy colour.

The seed-vessel is very small, and the seeds are minute and few.

It is not uncommon on the sides of hills in our western counties, but is so small that it is easily overlooked. It flowers in July.

Ray calls it *Alfne spuria pusilla repens foliis saxifragæ aureæ*.

These species of Chickweed are all supposed to possess the same qualities with the common kind; but they have not been much regarded.

The common chickweed has the credit of being cooling and diuretick; but little notice is taken of it. Outwardly it is cooling, but neither way demands much notice.

DIVISION II. FOREIGN SPECIES.

1. Large-fruited rock Chickweed.

Alfne petraea fructu majore. No. 27. 9

The root is slender, divided into many parts, and furnished with numerous, fibres.

The stalks are slender, upright, and toward the tops divided into several branches.

The leaves are small, oblong, narrow, and of a pale green: they are broadest toward the middle, and terminate in a point.

The flowers are numerous and small: they are white, and stand on short, slender footstalks.

The seed-vessel is round and large; and the seeds are small, numerous and brown.

It is frequent on the mountains in Germany; and flowers in August.

C. Bauhine calls it *Alfne minor lini capitalis*. Gesner, *Alfne petraea*.

2. Great Chickweed with serrated leaves.

Alfne maxima foliis serratis. No. 27. 10

The root is composed of numerous fibres.

The stalks are round, firm, erect, a foot and half high, and of a pale green; and they are not at all branched.

The leaves stand in pairs without footstalks: they are very large, and broadest at the base, where they meet in so close a manner that the stalk appears to grow through them: they are sharply serrated at the edges, and pointed at the ends.

The flowers grow at the tops of the stalks, and are large, and snow white; they consist each of five petals divided pretty deeply at the tips.

The seed-vessel is large, and the seeds are numerous, rounded, and flattened.

It is common among rocks in Italy; and flowers in August.

Menzelius calls it *Alfne maxima solanifolia*.

G E N U S VI.

MOUSE-EAR CHICKWEED.

CERASTIUM.

THE flower is composed of five petals, nip'd at the ends, and regularly disposed: the seed-vessel is long, crooked, obtuse, and dented into five parts at the end: the cup is composed of five leaves, and remains when the flower is fallen.

Linnaeus places this among the *decandria pentagynia*; the threads in the flower being ten, and the styles from the rudiment of the capsule five.

We are unlucky in that we have no English single name for this genus: we call it *borned chickweed*, from the shape of the seed-vessels; and *mouse-ear chickweed*, from the form and hairyness of the leaves in most of the species; but these being all compound terms, it is better to use the Latin name *cerastium*.

Linnaeus is reduced to the necessity of making an exception at the bottom of his character of this genus, as of the former, which overthrows the character of the greater arrangement of the class: he acknowledges there is a species which have only five stamens.

In this Linnaeus is right, that this plant, which has only five threads, is a proper and certain species of *cerastium*, though the rest of the plants of that name have ten: but this shews the uncertainty of the characters on which he establishes classes; for the great and single circumstance on which the present class is formed is the having ten threads.

DIVI-

DIVISION I. BRITISH SPECIES.

1. Dwarf early Cerastium.

Cerastium pumilum præcox. No. 27. 11

The root is a tuft of slender fibres.

The leaves that rise immediately from it are broad, short and obtusely pointed: they grow in a little tuft, and are of a pale green.

In the centre of this tuft rises a single stalk: this is round, hairy, upright, rarely at all branched, and three inches high.

The leaves stand in pairs at considerable distances: they are small, hairy, and short: they have no footstalks, but surround the stalk at the base.

The flowers stand at the tops of the stalks, and are small, white, and composed each of five petals nip'd at the ends: they rarely open.

The seed-vessel is small, long, and close at the end.

The seeds are numerous and minute.

It is common on walls and dry banks; and flowers in April. When it has stood some weeks, it sometimes is a little branched; but it is altogether distinct from the larger kinds. The flowers stand on shorter footstalks, and the plant never is at all clammy, as the others usually are. The leaves also are pointed a little more than in them.

C. Bauhine calls it *Alfne hirsuta minor*. Dillenius, *Cerastium hirsutum minus parvo flore*.

2. Common broad-leaved Cerastium.

Cerastium latifolium vulgare.

The root is composed of slender fibres.

The stalks are numerous, round, hairy, and of a pale green: they are not much branched, and they are generally somewhat clammy to the touch.

The leaves stand in pairs at small distances; and they are broad, short, hairy, and of a dusky green.

The flowers are small and white: they stand on short pedicels rising from the bosoms of the leaves, and they rarely open well.

The seed-vessel is long, crooked, and dented at the end: the seeds are numerous and small.

It is frequent in pastures, and flowers in spring. The whole plant is frequently covered with a clammy moisture.

C. Bauhine calls it *Alfne hirsuta altera viscosa*. Ray, *Alfne hirsuta myosotis latifolia præcocior*. Merret, *Alfne myosotis humilior et rotundiore folio*.

3. Narrow-leaved Cerastium.

Cerastium foliis angustioribus. No. 27. 12

The root is composed of small, white fibres.

The stalks are numerous, slender, hairy, of a pale green, and five or six inches high.

The leaves stand in pairs; and they are oblong, narrow, of a pale green, hairy, and often clammy, as is also the stalk.

The flowers stand on pedicels rising in the bosoms of the upper leaves; and they are larger than in the others and white.

The seed-vessel is long, slender, and lightly dented at the end.

The seeds are numerous, minute, and brown. It is common in our pastures, and flowers in July.

C. Bauhine calls it *Alfne hirsuta magno flore*. Merret, *Alfne myosotis procerior et longiore folio*.

Sometimes this species is altogether smooth, stalks and leaves.

4. Creeping Cerastium with great flowers.

Cerastium repens floribus amplis. No. 27. 13

The root is slender, and runs under the surface.

The stalks are numerous, round, hairy, of a pale green, and five or six inches in length: part of them stand erect, and part are procumbent.

The leaves grow in pairs, without footstalks, and are placed at considerable distances: they are short, obtuse, and of a pale green, moderately hairy, and of a firm substance.

The flowers grow on long, slender footstalks, and are very large, and of a snow white: they are composed each of five petals, dented at the ends.

The seed-vessel is long, thick, and crooked, and dented at the top; and the seeds are small, numerous, and angular.

It is a native of our northern counties, and flowers in August.

C. Bauhine calls it *Caryophyllus holosteus alpinus latifolius*. It is a very singular and beautiful plant.

5. Woolly Cerastium.

Cerastium tomentosum.

The root is fibrous and brown.

The stalks are numerous and weak: they are of a whitish colour, and some of them rise upright to the height of eight inches, but most lie upon the ground.

The leaves are broad, short, and obtuse: they are placed in pairs, and they are of a woolly softness to the touch, and of a white colour.

The flowers are large and white: they stand on short pedicels rising from the tops of the stalks, and from the bosoms of the upper leaves.

The seed-vessel is long, and considerably bent: the edge deeply divided, and the colour a pale brown.

The seeds are small and brownish.

It is found on the Welch mountains, and scarce any where else in Britain. It flowers in August.

C. Bauhine calls it *Caryophyllus holosteus tomentosus latifolius*.

The flowers is larger than in the former species.

We know nothing of the virtues of any of these plants, nor of the foreign species following.

DIVI-

DIVISION II. FOREIGN SPECIES.

Long-leaved Ceraftium. *Note 2nd 14*
Ceraftium angustifolium vasculo longo:

The root is small and white, furnished with a few fibres, and insipid to the taste.

The stalk is single, upright, and five inches high: it is hairy, and of a pale green: it sends out no branches, but at the top it divides, and spreads into a large head.

The leaves are narrow and long; they stand in pairs, and the joints whence they rise are marked by a knot, and a little swelled: the stalk also frequently bows from joint to joint.

The flowers are small and white: they scarce open perfectly; one generally stands at the top of

the main stalk, whence the principal branches that form the head rise; the others are placed on those branches which rise much higher.

The seed-vessel is long, slender, and a little crooked; so that it resembles a cock's spur.

The seeds are blackish.

It is a native of Spain, and flowers in July, in the cornfields.

Clusius calls it *Alfina corniculata*; a name copied by most, and translated by our English writers with that of the author: they call it *Clusius's horned chickweed*. Some have been for making it a species of *cockle*; but they never saw the plant.

GENUS VII.

SPURREY.

SPERGULA.

THE flower is composed of five petals, which open regularly, and spread out; and are oval and hollowed: the seed-vessel is oval, and composed of five valves; but contains only one cell: the cup is composed of five oval, hollow leaves regularly disposed, and stands with the seed-vessel after the flower is fallen: the seeds are edged with a film.

Linnaeus places this among his *decandria pentagynia*; the threads in the flower being ten, and the styles from the rudiment of the fruit five.

The difference is evident between this plant and the *alfine*, not only in its characters, but form, and manner of growing; wherefore Mr. Ray judged unhappily in joining them, especially as there are of each numerous species.

1. Common Spurrey.

Spergula major. Note 15

The root is small, slender, long, and furnished with numerous fibres.

The stalks are numerous, round, upright, and of a pale green: they have few branches toward the bottom, but many toward the top.

The leaves are very narrow, oblong, of a deep green, and often curled: they stand in a considerable number at each joint, surrounding the stalk, in the manner of those of what are called the stellate plants.

The flowers are small and white; and they consist each of five undivided petals.

The seed-vessel is large, and the seeds are small and blackish.

The size of the plant varies extremely according to the nature of the ground: six or eight inches is a common height for it; sometimes we see it more than a foot; and in Flanders, where they have fields of it, it is often two feet high.

It is common wild on our plowed grounds; but has sometimes been cultivated in England, as it is abroad, for the use of cattle.

C. Bauhine calls it *Alfina spergula dicta major*. Others, *Spergula*.

2. Purple Spurrey.

Spergula floribus purpureis.

The root is long, slender, full of fibres, and penetrates deep.

The stalks are numerous, weak, and very much branched: they are five or six inches long, and they lie spread upon the ground.

The leaves are numerous, small, and of a pale green.

The flowers stand at the tops of the branches in great numbers; and they are small, but of a beautiful pale purple.

The seed-vessels are large, and the seeds are very numerous, and small.

It is common on dry hilly ground, and flowers in May. We have it in Hidepark, and other places about London, in great abundance.

C. Bauhine calls it *Alfina spergule facie minor*, few *Spergula minor flore subceruleo*.

The leaves in this species seem, on a slight view, to surround the stalk in great numbers at every joint, as those of the *common spurrey*; but, when the plant is more nicely examined, there are found only two principal leaves at each joint, and the others are young shoots in their bosoms: they stand very thick, so that the mistake is easy.

3. Large-flowered Spurrey.

Spergula flore majore.

The root is long, slender, and furnished with many fibres.

The stalks are numerous, round, jointed, and eight inches high.

The leaves are oblong, somewhat broad, and of a deep green: they are of a firmer substance than in the *common spurrey*, and do not curl, or

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turn,

turn, as they do: they surround the stalk, growing several at each joint; but, as they are broader, they are also fewer than in the *common spurrey*.

The flowers stand at the tops of the stalks; and they are larger than those of the *common kind*, and of a milk white.

The seed-vessel is large, and roundish, or oval; and the seeds are numerous and small: they are black, and have the edge white.

It is common on sandy grounds in Ireland, and in the west of England; and flowers in April.

Ray calls it *Alfina spergula dicta semine membranaceo fusco*. Dillenius, *Spergula annua semine foliaceo nigro circulo membranaceo albo cinereo*.

4. Sea Spurrey.

Spergula maritima.

The root is long, slender, and furnished with many fibres.

The stalks are numerous, upright, and six or eight inches high: they are of a pale green, very much branched toward the top, and jointed at small distances.

The leaves are numerous, and stand round the stalk at the joints, in form of the rays of a star: they are oblong, narrow, and of a pale green.

The flowers grow at the tops of the branches in great numbers; and they are small and purple.

The seed-vessel is large, and the seeds are light and brown.

It is common on our sea-coasts, and flowers in July.

C. Bauhine calls it *Alfina spergule facie media*. Others, *Sagina spergula minor*, and *Spergula marina*. Our people call it *Sea spurrey*, and *Salt-marsh spurrey*.

5. Dwarf sea Spurrey.

Spergula maritima minima.

The root is long and slender.

The stalks are numerous, and four inches long: they frequently all trail upon the ground, but sometimes a few of them are erect.

The leaves are narrow, oblong, small, and of a pale green.

The flowers are minute, and of a bluish purple.

The seed-vessels are small, and the seeds dusky, but edged with a white very narrow circle of a membranaceous matter, as the others.

The leaves in this plant are very numerous; but the joints of the stalk are much more distant than in the others; so that more of it is seen.

It is common in our salt marshes, and flowers in May.

Dillenius calls it *Spergula maritima flore parvo ceruleo semine vario*. He first observed it on Sheepy island.

The virtues of these several plants are trifling; but their uses may be very great.

Our farmers, who used to go in a very limited tract of husbandry, have of late years introduced from other countries many new products, by the assistance of which they change their crops upon the same ground very happily, avoid the former necessity of fallow-seasons; and add vastly to their profits.

Among the other useful plants cultivated in the neighbouring countries is the *common spurrey*: this makes a very wholesome and rich food for the horned cattle: it is therefore worth more notice in England. But there is another species, the *common sea spurrey*, which has not been yet cultivated any where, but might be in many places to a great advantage.

The sea-coast is the natural soil for this plant; and it would therefore be very proper, and very beneficial to the farmer to sow it on such lands as, lying very near the sea, will not bear any other crop to advantage.

There is a vast quantity of this land in the kingdom, which at present lets for very little, and yields very little; but if this plant were introduced upon it, would be of great value. Its qualities are the same in all respects with those of *common spurrey*.

The END of the NINTH CLASS.

BRITISH HERBAL.

CLASS X.

Plants with the flower composed of FIVE PETALS regularly disposed, and the seeds contained in a SINGLE CAPSULE; and with the leaves alternate, or not in pairs, upon the stalks.

THESE plants, if the flowers and seed-vessels alone were to be considered in the establishment of classes, would have been arranged in the same with those of the preceding; yet they are extremely different from them. The alternate disposition of the leaves is an obvious character, and is universal among them; as the having them in pairs is of the preceding.

This may, to a less considerate observer, appear too trivial an incident for the forming a classical distinction; but nature, whose steps alone I follow, shews it to be otherwise. Let him reflect, and observe, that of all the genera treated of in the preceding class there is not one which has belonging to it a single species the leaves of which stand alternately; and that among those which constitute this class, the character of which is to have the leaves alternate, there is not one that has a single species with the leaves in pairs; and he will then find this, which before seemed to him but a casual incident in the growth of the plants, a regular and universal law established by nature among these plants, and in all the genera not once violated.

He will from this, not only learn the error of his first opinion, but will see that nature made the disposition of the leaves of plants a certain and regular part of their established distinctions, and that Linnaeus's method must have been imperfect, were it only for that it has not regarded them as any part of classical distinctions. The more strict and more general marks of division are placed in larger and more obvious parts of the flower and seed-vessel; but as there are in the threads, and other smaller parts of it also, very remarkable particularities, so there are in the disposition of the leaves, and the general growth of the plant.

These last, as they are the more obvious of the two subordinate characters, so they are the most certain, and free from variation.

We find, in many of the particular genera of the preceding class, certain species in which the number of the threads vary; and this Linnaeus finds himself obliged to own, even where he is establishing the characters of the genus upon them; but we do not see any instance of the leaves being placed variously in the several species of any genus therein.

This is a point we shall have occasion to treat more at large when we come to speak of the stellate plants; but thus much may be proper to be observed here, to establish the distinction of the presents and prepare for that of the succeeding class.

S E R I E S

S E R I E S I.

Natives of BRITAIN.

Those of which one or more species are naturally wild in this kingdom.

G E N U S I.

SUNDEW.

RORELLA.

THE flower consists of five petals, regularly disposed into a hollowed form: the seed-vessel is oval, and has five valves at the top, but contains only a single cell: the cup is formed of a single piece, divided into five segments, and remains when the flower is fallen.

Linnaeus places this among the *pentandria pentagynia*; the threads in the flower being five, and the styles from the rudiment of the fruit of the same number.

This author has taken away the ancient name of this genus, which is *ros solis*, and calls it *drosera*. As a general name consisting of more than one word is always improper, and as, beside the name *ros solis*, there is a familiar one always understood, and used as synonymous with it, that is *rorella*, I have chosen this for the name of the genus; every one conversant in the least with these studies knowing it.

DIVISION I. BRITISH SPECIES.

1. Common Sundew.

Rorella vulgaris. *Ms. 27.16*

The root is composed of a few, slender crooked fibres:

The leaves rise from it in a little cluster ten or a dozen together, and form a very singular appearance: each has its long and slender footstalk; and both that and the leaf are very hairy: the body of the leaf is roundish, or a little inclining to oval: the colour is a dingy purple, and the substance is fleshy.

The hairs that grow on this, and on the footstalks, are long, robust, and yellowish; and they differ greatly from those of any other known plant, except the species of the same genus: they are often waved or crooked, and there stand on the leaves large drops of a transparent fluid in the midst of the hottest days: from this the plant received its name of *sundew*.

The stalk rises in the centre of this tuft of leaves, and is upright, single, undivided, and six inches high: its colour is purple, and it has no leaves or branches; only that at the top it sometimes divides into two parts.

The flowers stand on the divisions, ten or a dozen on each: they are small, and rarely keep long open.

The seed-vessel is small and oval; and the seeds are also oval, numerous, and small.

It is common on the boggy parts of heaths; and flowers in June.

C. Bauhine calls it *Ros solis folio rotundo*. Others, simply *Ros solis*. Several of the following species of this genus agree with this in having no leaves on the stalk: it is on this account the classical character says, these plants have leaves alternate, or not in pairs: those from the root grow all from a single head, and they are all the leaves belonging to these kinds.

2. Roundish-leaved perennial Sundew.

Rorella rotundifolia perennis. *Ms. 27.17*

The root consists, not of a few slight fibres, as in the preceding, but of a thick tuft of them, spreading every way to a considerable length, from the several parts of one principal, slender, and long body.

The leaves rise in a little cluster, but rarely more than six or seven together: they have long footstalks, and stand more upright than in the common *sundew*: the leaves themselves are roundish, but approaching to oval, and are of a thick, fleshy substance: they are covered with short and stiff, yellow hairs, and generally have drops of a transparent liquor on them in the heat of the day.

The stalk is naked, slender, upright, and four inches high.

The flowers grow at the top in a series of eight or ten together; and they open more freely, and stand longer, than those of common *sundew*: they are small and white.

The seed-vessels are oblong, and the seeds numerous and roundish.

It is common on bogs, with the former, but is overlooked. It flowers in July.

Ray calls it *Rorella rotundifolia perennis*.

3. Small longish-leaved perennial Sundew.

Rorella pusilla longifolia perennis. *Ms. 27.18*

The common *sundew* is sometimes observed to have the leaves approaching to an oblong form, and has thence been divided, by Caspar Bauhine and others, into two species, the latter called *ros solis folio oblongo*; but that is only a variety of the common kind: the plant here treated of differs much more obviously and essentially, and is a truly distinct species.

The root is a great tuft of thick, black, and crooked fibres.

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The leaves rise in a large tuft twenty or more together: they are of an oblong figure, smallest at the base, and thence gradually widening to the extremity, where they are rounded and obtuse; and they are placed on long, slender footstalks.

They are covered with stiff, long, yellow hairs, and rise up more erect than the leaves of any other species.

The stalk is single, naked, purplish, and not above three inches high: it rarely divides, but usually has a long series of flowers standing all on one side: these are white and small.

The seed-vessel is large and oval; and the seeds are small, numerous, redish, and nearly round.

It is found on wet parts of heaths, and flowers in May.

Ray calls it *Rorella longifolia perennis*.

This author, in compliance with the custom of others, has set down the variety of the common *sundew* with longish leaves; but declares his doubts as to its being a distinct species: this, on the contrary, he marks as a certainly distinct species, and different absolutely from that.

4. Great long-leaved Sundew.

Rorella major longifolia. *Herb. 27. 19*

This, like the two former, is a perennial species.

The root is composed of innumerable, slender, crooked fibres, and spreads a great way under the surface.

The leaves rise in a cluster, and are long and narrow: they are placed on very long, slender footstalks, and naturally stand very upright; but the weight of the leaf, when charged with its moisture, and the extreme weakness of the stalk, occasions its frequent drooping.

The stalk rises in the centre of this tuft; and

is naked, slender, and eight or ten inches high: it is of a purplish colour, as are also the leaves, and it rarely divides even at the top.

The flowers stand in a short spike at the summit: they are larger than in the preceding species, and are white; but they rarely open widely.

The seed-vessel is oval and large; and the seeds are numerous, and very small.

It is found on wet heaths in our northern counties; and flowers in June.

Ray calls it *Rorella longifolia maxima*.

All these species have the same medicinal qualities.

What we know with certainty of them is, that in external use they are very dangerous; and, as it is said, that taken internally they are very hurtful to cattle, we are told that, in the form of a distilled water, they are highly cordial and restorative; but at present they are disused in regular practice; nor is it likely that ever they deserved the character that has been given of them in that respect.

The leaves, bruised and applied to the skin, act as an escharotick: they are more violent than the leaves of the sharpest crowfoots, and bring on such inflammations as are not easily removed; and our people in the country are so convinced of their destructive qualities, when eaten by sheep, that it is vulgarly known among them by the name of *red rot*.

The Italians use it to this day, among many other ingredients, in their *liqueurs*, or fine cordials; and the ladies in the country, with us, yet admit it among other ingredients, in the same manner, into their family waters.

It is probable that the virtues ascribed to it in these are owing to the other ingredients; and that its own pernicious qualities do not rise in distillation.

DIVISION II. FOREIGN SPECIES.

Grass-leaved Sundew.

Rorella foliis gramineis. *Herb. 27. 20*

The root is small, long, and furnished with a few fibres.

The leaves are very numerous, and rise in thick tufts: they grow upright; they have no footstalks; and, when young, they frequently curl spirally at the ends: they are very long, and extremely narrow, round on the back, hollow in front, and covered with long hairs.

The stalk rises in the midst of this tuft, and is slender, and tolerably upright.

It is not so tall as the leaves; and is not naked, as in the several kinds that are natives of our country, but has two or three leaves upon it, placed at distances alternately, and of the same shape with those from the root.

The flowers are small and white; and the seed-vessel is large and oval.

The seeds are small and brown.

It is found on damp grounds in Portugal, and flowers in July.

Plukenet calls it *Ros solis lusitanicus foliis asphodeli minoris*.

Its qualities are not certainly known.

GENUS II.

SAXIFRAGE.

SAXIFRAGA.

THE flower is composed of five petals, which are narrow at the base, and broader to the end: the seed-vessel is of an oval figure, but has a double beak: the cup is small, it is formed of a single piece, divided into five segments, and it remains with the seed-vessel.

Linnaeus

Linnaeus places this among the *decandria digynia*; the threads being ten in each flower, and the styles from the rudiment of the fruit two.

This author joins the *saxifrage* and *geum* under the same name; but they are distinct genera.

We have observed that the cup in the *saxifrage* is formed of a single piece, divided into five segments; but that of the *geum* is formed of five separate leaves: and from this difference of structure, results an obvious distinction in the placing and appearance of the seed vessel; for in the *saxifrage* it grows to the entire part of the cup; whereas in the *geum*, there being no such entire part of the cup, it is separate.

This is an essential and obvious character, and it is the more needful to be preserved, because both the *saxifrage* and the *geum* have very numerous species. The blending these together, as Linnaeus has done, by confounding the two genera, must therefore encrease the difficulty of the science.

It is singular that Mr. Ray, less accurate than Linnaeus in his examinations of the more minute parts of plants, though more so in his choice of classical distinctions, should have observed this, while the other either overlooked it, or did not pay it that regard which was due to its utility.

DIVISION I. BRITISH SPECIES.

1. Common white Saxifrage.

Saxifraga alba vulgaris. *Herb. 20. 1*

The root is composed of a great many small, oval, or roundish tubercles, of a fleshy substance and redish colour; and of a multitude of long and slender fibres, issuing from their surface, and from a small head, to which they also grow.

The leaves rise in little clusters, and are of a very singular and pretty form: they are rounded, but a little part of the circular figure is wanting where the stalk is inserted; and they are of a fleshy substance, a pale green colour, and indented at the edges: their footstalks are long and slender, and they stand tolerably erect.

The stalk rises in the midst of this cluster, and is round, fleshy, upright, and about a foot high.

The leaves are placed alternately on it; and they have long footstalks, and resemble those from the root.

The flowers are large, beautiful, and of a snow white; and they are sometimes found naturally double: they stand on short footstalks at the tops of the stalks, and on little shoots rising from the bosoms of the upper leaves.

The seed-vessel is oval, and has a double beak at the top: the seeds are numerous and small.

It is common in our pastures, and flowers in May. About Wandford and toward Peckham there is a great deal of it; and, when in flower, it gives those fields a very beautiful aspect.

C. Bauhine calls it *Saxifraga rotundifolia alba*. J. Bauhine, *Saxifraga alba radice granulosa*; and others, plainly *Saxifraga alba*.

This plant is an excellent diuretick. An infusion of the whole herb, roots, leaves, and stalks, works powerfully, yet safely, by urine, and brings away gravel.

It has been supposed, by some, capable to dissolve the stone in the bladder; but this is an idle thought.

The dried root possesses the same qualities, but in a less degree. This is what the druggists used to sell under the name of *saxifrage seed*; the *granules*, separated and dried, which was the usual way, having something of the appearance of a seed. The plant loses a great deal of its virtue in drying; and it is great pity that it is

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not to be had during a longer part of the year fresh; for it is worthy to be much more used than it is.

2. Rue Whitlow grass.

Saxifraga foliis digitatis. *Herb. 20. 2*

The root is composed of a few small threads.

The first leaves rise in a little tuft, and are thick, fleshy, and divided in a fingered manner: their colour is whitish, or not unfrequently redish; and they have a few scattered hairs upon them.

The stalk rises in the midst of these, and is round, thick, fleshy, of a redish colour, and about three inches high.

The leaves stand alternately on it, and resemble those from the root, but they are smaller.

The flowers stand at the tops of the stalks and branches, and are moderately large, and of a beautiful snow white.

The seed-vessel is oval, and forked at the top: the seeds are numerous, and very minute.

It is common on old walls and the tops of houses; and flowers early in spring.

C. Bauhine calls it *Sedum tridactylites testorum*. Others, *Saxifraga annua verna humilior*.

Our common English name of *rue whitlow grass* is a very indeterminate one: we should do much better to call it *low spring saxifrage with fingered leaves*.

3. Trifid-leaved Saxifrage.

Saxifraga pumila trifido folio.

The root is small, oblong, and furnished with a few fibres.

The leaves rise in a thick tuft; and, as they are very fine, and thick set, they have a mossy appearance; whence some have named the plant *mossy fongreen*.

The leaves, when examined separately, are oblong, of a pleasant green, and divided into three parts at the top.

The stalks are numerous, small, upright, and three or four inches high.

The leaves on them are placed irregularly, and are few and small.

The flowers stand at the tops of the stalks, and are of a beautiful snow white.

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The seed-vessel is oblong, and split at the end; and the seeds are very minute.

It is a native of the Welch mountains, and flowers in May.

Ray calls it *Saxifraga muscosa trifido folio*. C. Bauhine, *Sedum alpinum trifido folio*. Others, *Sedum ajacis folio*.

4. Short-leaved blue-flowered Saxifrage.

Saxifraga cerulea foliis brevibus.

The root is long, slender, divided, and furnished with a few fibres.

The leaves rise in a thick tuft, and are supported on short stalks, a great cluster upon each.

They are oblong, and somewhat broad; and of a pale green, pointed at the ends, and undivided at the edges.

The stalks which bear the flowers are small and weak.

The flowers are large, beautiful, and blue.

The seed-vessel is roundish, but terminates in a forked end; and is full of very small, brown seeds.

It is found on the hills in our northern counties, and on the Welch mountains; and it flowers in April.

Ray calls it *Saxifraga alpina ericoides flore ceruleo*; but, though he adopts that name, he declares it to be ill suited; the leaves being like those of mother of thyme, rather than of heath. C. Bauhine calls it *Sedum alpinum ericoides ceruleum*.

5. Saxifrage with yellow spotted flowers.

Saxifraga floribus luteis guttatis. *Merret.*

The root is small, and composed of slender fibres.

The stalks that first rise from this trail upon the ground, and send out roots also in many places.

From these rise the stalks which bear the flowers.

They are small, upright, round, fleshy, and four or five inches high.

The leaves are oblong, narrow, and of a fleshy

substance and pale green colour: they are disposed irregularly on the stalk, and are very numerous.

The flowers are singular, and very beautiful: they are large, of a bright gold yellow, spotted with a deeper yellow: in some plants these spots are very numerous; in others there are fewer; and in some there are none: they also vary in degree of colour, being very pale in some, and very deep in others.

The seed-vessel is oval, and has two horns: the seeds are moderately large, and redish.

It is found in damp places, and about springs, in the northern mountains of England; and flowers in June.

Ray calls it *Saxifraga alpina angustifolia flore luteo guttato*. C. Bauhine, *Sedum alpinum flore pallido*.

6. Saxifrage with serrated leaves.

Saxifraga foliis ovatis serratis. *Merret.*

The root is composed of a multitude of thick, black fibres.

The leaves rise in a tuft from this; and they are large, of an oval figure, and sharply serrated at the edges: they are of a pale green, and frequently their edges turn in; so that they appear hollow: they are an inch in length, and two thirds of an inch in breadth; they lie spread upon the ground, rising from the head of the root without any footstalks.

The stalk rises in the midst of these, and is round, thick, fleshy, and of a pale green.

It has no leaves, nor is at all branched; and its height is four, five, or six inches.

The flowers stand at its top in a thick, short, tuft: they are large and beautiful.

The seed-vessel is oval, and splits at the top into two horns; and is full of minute seeds.

It is frequent on the mountains of Wales, and flowers in May.

Ray calls it *Saxifraga foliis oblongo rotundis dentatis floribus compatis*. Merret, *Sedum serratum rotundifolium*.

These plants are supposed to possess the same virtues with the common Saxifrage; but few of them have been tried.

DIVISION II. FOREIGN SPECIES.

Great Saxifrage with a bulbiferous stalk.

Saxifraga major caule bulbifero. *Merret.*

The root is composed of a number of tubercles, and many fibres rising among them.

The first leaves are of a roundish form, but deeply cut in several parts, and more slightly indented.

They stand upon short, redish footstalks, which are fleshy and firm.

The stalk is round, single, undivided, and two feet high.

The leaves are placed alternately, and they are oblong, broad, thick, fleshy, and very deeply divided.

In the bosom of each leaf, where it is inserted to the stalk, there stands a little, fleshy bulb, or tubercle.

These in all respects resemble those tubercles which grow to the root, and answer the same purposes; for they fall to the ground when the leaves drop, and taking root furnish new plants.

The flowers stand three or four together at the tops of the stalks, and are large and white.

The seed-vessel is oval, and split at the top into two horns; and is full of small brown seeds.

This is frequent in Germany, and flowers in June. It greatly resembles our common Saxifrage, but is larger, and has the leaves more divided. The experiment has been tried, and the seeds of one will not produce the other, which is the best test to prove them distinct species.

The virtues of this are the same with those of the common English kind; and these bulbs from the

the bosoms of the leaves are collected for use in Germany. Hence came the mistake of calling the bulbs of the root seeds, these having been first called by that name, and from their situation much more naturally than those at the root.

It is not peculiar to this plant to produce these particular parts: the toothwort, to be described hereafter, and several others, do the same.

GENUS III.

KIDNEYWORT.

GEUM.

THE flower consists of five petals, narrow at the base, and broadest at the extremity: the seed-vessel is oval, and terminates in a divided top: the cup is composed of five little leaves, and remains with the seed vessel, though separate and detached from it.

Linnaeus places this genus among the *decandria digynia*, joining it under one common name with Saxifrage. I have shewn, in the character of the preceding genus, how absolutely and essentially they differ in the structure of the cup.

DIVISION I. BRITISH SPECIES.

1. Hairy Kidneywort.

Geum hirsutum. *Merret.*

The root is long, slender, and has a few fibres.

The leaves rise in a small tuft, and stand pretty upright: they have no footstalks; and they are oblong, moderately broad, sharp-pointed, dented at the edges, of a pale green colour, and hairy.

The stalk rises in the midst of these, and it is small, naked, slender, and four inches high.

The flowers stand at the top, on long, slender footstalks, and spread themselves into a kind of umbel: they are small and white.

The seed-vessel is small, and the seeds are numerous and brown.

It is found on the Welch mountains, and in some of the northern parts of England, and flowers in April.

Ray calls it *Geum palustre minus foliis oblongis crenatis*.

2. Narrow-leaved yellow Kidneywort.

Geum angustifolium luteo flore.

The root is a cluster of slender, but tough fibres.

The leaves rise from it in a tuft; and they are oblong, narrow, and smooth: they are of a fleshy substance, and pale green colour.

The stalk rises in the center of these, and is round, slender, upright, and of a pale green, often redish.

The flowers are very beautiful: they are composed of five yellow petals, pointed, and beautifully dotted with orange-colour.

DIVISION II. FOREIGN SPECIES.

1. Long-leaved Kidneywort.

Geum longifolium. *Merret.*

This is a most elegant plant.

The root is long, slender, and furnished with a few fibres.

The leaves are numerous, and very beautiful: they are long, narrow, and rounded at the ends: they are of a pale green, and they have a thin

The seed-vessel is divided into two parts at the top, and the seeds are small and brown.

It is found on the hills in our northern counties, and flowers in August.

Ray calls it *Geum angustifolium autumnale flore luteo guttato*.

3. London Pride.

Geum foliis subrotundis crenatis. *Merret.*

The root is long, slender, and furnished with a few fibres.

The leaves rise in a tuft, and are of a roundish figure, dented about the edges, and of a pale green.

The stalk rises in the midst of a regular and beautiful tuft of these, and is round, slender, redish, naked, and a foot high.

The flowers stand in great numbers on branches sent out from the upper part of the stalk, and they are small, but, when examined nearly, very beautiful: they are spotted in a most elegant manner with crimson.

The seed-vessel is small, and terminates in a double point, and the seeds are minute and numerous.

It is wild on the mountains of Ireland; whence it has been brought into our gardens. It flowers in July.

Ray calls it *Geum folio subrotundo majori pistillo floris rubro*. We, *London Pride*, or *None so pretty*.

filvery edge of a cartilaginous substance all round them, which is beautifully serrated: they lie spread in a circular manner on the ground, and the stalk rises in the centre.

This is round, firm, upright, and of a pale green.

There are generally two or three leaves upon it of the same shape with those from the root, and they stand irregularly, and at great distances.

The flowers are large, beautiful, and snow white: they grow in a tuft at the top of the stalk.

The seed-vessel is small, and ends in two points.

It is full of small brown seeds.

It is a native of the mountains in Germany, and flowers in July.

Morison calls it *Sedum ferratum album briorne marginibus argenteis*.

2. Kidneywort, with white dotted flowers.

Geum floribus albis punctatis foliis serratis *Pluk.*

The root is composed of a few slender, but very long and tough fibres, rising from a small head.

The leaves spread themselves upon the ground in little tufts: they are oblong, broad, and very deeply serrated: they are narrow at the base, broad toward the other end, and terminate in a sharp point.

The stalk rises in the centre, and is round, firm, upright, and a little hairy, as are also the leaves.

There are no leaves on the stalk.

The flowers are small, but very beautiful: they stand in a little tuft at the top of the stalk, and are of a snow white, beautifully spotted.

The seed-vessel is oval, and has a double point. The seeds are very small.

It is a native of Switzerland, and flowers in April.

Plukenet calls it *Sanicula myosotis floribus albicantibus fere umbellatis*.

3. Kidneywort, with tufted flowers.

Geum floribus fasciculatis *Pluk.*

The root is composed of a number of black fibres.

The leaves rise in a tuft, and are oblong, broad, of a pale green, and serrated at the edges.

The stalk is round, upright, and of a reddish colour, and is in a manner naked: there are no leaves on its lower part, and only a few rudiments of leaves where the branches rise that bear the flowers.

These are small, white, and clustered in little tufts at the ends of the several branches that grow from the upper part of the stalk.

The seed-vessel is oval, and split at the end into two parts, and the seeds are small.

It is a native of North America, and flowers in August.

Plukenet calls it *Sanicula Virginiana alba folio oblongo mucronato*.

G E N U S IV.

GRASS OF PARNASSUS.

PARNASSIA.

THE flower consists of five petals, which are broad, and regularly spread open: the seed-vessel is of an oval shape, but marked with four slight ridges, and is composed of four valves: the cup is formed of a single piece, divided into five long segments, and remains when the flower is fallen.

Linnaeus places this among the *pentandria tetragynia*; the threads sustaining the buttons in the flower being five, and the stigmata rising from the rudiment of the fruit four.

The usual name of the genus was *gramen Parnassi*; and this Linnaeus has very judiciously set aside, reducing it, after C. Bauhine, to one word, *Parnassia*; the word *gramen* having no alliance with the nature of the plant. Of this genus there is but one known species, and that is a native of Britain, as well as most parts of Europe.

Grass of Parnassus.

Parnassia *Pluk.*

The root consists of a small head, and an innumerable quantity of long and slender fibres.

The leaves are numerous, and extremely beautiful; each has its long, slender footstalk, and the shape is heart-fashioned: they rise pretty upright in a large tuft, and are of a deep green.

The stalks are numerous, slender, round, upright, and a foot high.

Each has only a single leaf upon it, and sustains a single flower.

The leaf grows about the middle of the stalk, and surrounds it at the base: its shape is the same with that of those from the root, but it has no footstalk.

The flower is very large and beautiful: it is white, and elegantly striated; and there are a multitude of filaments, no less than sixty-three in all, beside the proper threads, which are only five: these are a great addition to the beauty of the flower.

They rise from certain glandules in the lower part of the flower: there is one on each petal, and it is hollow, and heart-fashioned; and from this there rise thirteen of these threads, taller as they proceed up the margin, and each having its top terminated by a little globe.

These glands Linnaeus calls the *nectaria*, and makes the essential character of the genus: they are, indeed, extremely singular, as well as beautiful.

The seed-vessel is oval, and edged in four places; and the seeds are small and oval.

It is found on boggy ground in many parts of the kingdom, and flowers in June.

C. Bauhine calls it *Parnassia flore albo simplic.*

Others, *Gramen Parnassi vulgare*, and *Gramen Parnassi minus*. The flower is sometimes naturally double.

The virtues of this plant have not been tried; but the farmers think it hurts their sheep.

G E N U S

G E N U S V.

FLAX.

L I N U M.

THE flower is composed of five petals, narrowest at the base, and broadest upwards; and it opens regularly, and is hollow: the seed-vessel is of a rounded figure, but has five ridges, and a point at the top: it is formed of five valves, and has ten cells: the cup is small; it is composed of five oblong leaves, and remains when the flower is fallen.

Linnaeus places this among the *pentandria pentagynia*; the threads in the centre of the flower being five, and the styles from the rudiment of the fruit also five.

That author includes in this genus the *little rupturewort*, or all seed called *radiola*. This is confounding plants altogether distinct; for this little herb is quite different in genus, and has its received and well known name.

Linnaeus contradicts his own system in joining this plant with the *linum*; for he establishes the classical character under which that genus is arranged to be the having five threads in the flowers, and five styles; whereas the threads in this, and the styles also, are only four.

Of this Linnaeus was not ignorant: he has mentioned that one species wants a fifth part of the number in these parts of the flower: indeed, it wants, not only one of each of these parts, but one of the petals also; for it has only four of these, as of the others.

It is, from this, evident that the plant neither is of the same genus, which is determined by the petals, nor of the same class, which is fixed by Linnaeus from the threads, with flax wherewith he confounds it. He says, some have been desirous, because of its difference in the number of the petals, threads, and styles, to constitute a new genus of it, and separate it from the flax; but he adds, *this nature abhors*. I must utterly differ with him in this matter: it is what nature dictates and directs, in the plainest manner, and under the most obvious characters. This determination of that author is therefore rash and contradictory to reason in itself, and it is very unhappy in its consequences for his system; for if nature abhors the separating plants that are in obvious characters allied to one another, on account of some difference in the number of the threads, and other minute parts of the flower, then nature abhors his whole system of botany. We have shewn in every class how he removes and separates plants perfectly allied to one another, because they happen to differ in the number of threads in the flower. This is that making a separation from the variation of number in like plants of which we have complained so often; which his method imposes; and which, he says here, is abhorrent to nature.

This is not the only instance wherein the present genus of plants shews us the uncertainty and error of Linnaeus's method: others, which he has in his last work, his *Species Plantarum*, attributed to the present class, as perfectly differ from its laws.

He has there introduced the yellow bellflower among the species of flax, though he has established in the general character, that the flax has five petals in the flower, and in that plant it consists only of one: he calls this doubtful; but three could be no doubt, from this plain circumstance.

The *little yellow flax* is also placed here among the rest, and properly enough in nature, but unhappily by this author, who has attributed five styles to the flax, whereas this has but three.

I shall enter no farther into this disquisition: I am to write a history of plants, and not a criticism upon the works of Linnaeus; though so much as this, though written with pain, cannot be avoided.

DIVISION I. BRITISH SPECIES.

1. Common Flax.

Linum vulgare *Pluk.*

The root is long, slender, and hung with a few fibres.

The stalk is round, firm, upright, and of a pale green: it has scarce any branches, and is three feet high, and very upright.

The leaves stand irregularly, and are numerous: they are long, narrow, and of a fresh green: they have no footstalks; they are not at all divided at the edges; and they are pointed at the ends.

The flowers are large, and of a beautiful sky-blue.

They grow in considerable numbers on the tops of the stalks, and on short branches rising for their support just below the top of it.

No XX.

The seed-vessel is large, and the seeds are also large, numerous, and of a glossy brown.

We see it naturally in our pastures, and about road-sides in some parts of the kingdom, and cultivated in fields in many others: whether the wild plants are properly native of this island or rise from scattered seeds it is not easy to say.

Some have divided the *common flax* into two species on this account, calling the one the *manured flax*, and the other the *wild flax*; but the plant is the same, whether it grow naturally, or be raised by art; that which is cultivated will be larger: there is no other difference.

C. Bauhine and others call it *Linum sativum*.

The use of the stalks of this plant in making linen is sufficiently known. The thready part is separated from the rest, beat and combed till it

D d d hangs

hangs in long fine threads, and then bleached to a whiteness.

The virtues in medicine are very considerable: for this purpose the seeds alone are used.

They are emollient and diuretick. A tea, made by pouring boiling water upon them unbruised, is pleasant, and is of excellent service in disorders of the breast and lungs. It also allays heat of urine, and brings away gravel.

Outwardly it makes an excellent emollient fomentation; and is an ingredient in many of the ointments, and other external remedies, in our dispensaries.

The oil, drawn from the bruised seeds without heat, is excellent in disorders of the lungs, and in pleurisies and peripneumonies.

Externally it is also an anodyne and resolvent in a great degree; indeed, superior to almost any other oily medicine.

2. Great-flowered perennial Flax.

Linum perenne flore majore. *Herbar. 13*

This is a wild Flax, very different from the common manured kind; being a hardy, perennial, and deep rooted plant.

The root is long, thick, woody, and hung with many fibres.

The stalks are numerous, round, upright, hard, and a foot and half high: they are brown and brittle; and are seldom at all branched.

The leaves are oblong, narrow, sharp-pointed, and of a pale green: they are very numerous, and are placed irregularly on the stalks.

The flowers grow in a thick tuft at the tops of the branches: they are large, and of a beautiful blue.

The seed-vessel is very large, and the seeds also large.

It is frequent on the borders of fields in many parts of England, and flowers in July.

Ray calls it *Linum sylvestre ceruleum perenne erectius flore et capitulo majore*.

The flower is sometimes white.

3. Procumbent Flax with small flowers.

Linum procumbens flore minore.

The root is long, thick, and brown: it is furnished with many fibres, and endures from year to year.

The stalks are numerous, round, slender, and weak: they lie in part upon the ground, and in part rise up.

The leaves are long, narrow, and of a bluish green; and they stand irregularly, and in great numbers, on the stalks.

The flowers stand on the tops, and on slender footstalks rising from the bosoms of the upper leaves: they are smaller than those of the common flax, but of the same celestial blue.

The seed-vessels are small, hard, brown, and sharp-pointed; and the seeds are brown.

It is found in barren places in our southern counties; and flowers in July.

Ray calls it *Linum sylvestre perenne procumbens flore et capitulo minore*.

4. Narrow-leaved purple Flax. *Herbar. 14*

Linum angustifolium flore purpurascens.

The root is long, slender, and furnished with many fibres.

The stalks are numerous, round, slender, and of a pale green: they are very upright, and full of leaves, placed with perfect irregularity from the bottom to the top.

These are long, narrow, and sharp-pointed: they have no footstalks, and are of a pale green.

The flowers are large, and very beautiful: they stand at the tops of the stalks, and their colour is a pale purple.

The seed vessel is small, and the seeds are oval, and of a pale brown.

It is found in many parts of England near the sea-coast; and flowers in June.

The flowers vary extremely, in their tinge of purple: sometimes they are deeper; sometimes paler; and sometimes nearly white: the colour is sometimes diffused all over them; and in others it is only laid on in lines, or streaks, toward the bottom of the petals, which grow fainter, and die off as they come nearer the tips.

C. Bauhine calls it *Linum sylvestre angustifolium floribus dilute purpurascens sive carneis*.

5. Mountain Flax.

Linum foliis brevibus. *Herbar. 15*

This is a singular plant; very unlike the other species of flax, but properly and truly one of the kind.

The root is long, slender, white, and hung with many fibres.

The stalks are numerous, round, firm, upright, and ten inches high: they have no branches till toward the top, where they divide, by twos, into a large, spreading head.

The leaves are short and small: they are of a dusky green, and of a firm substance.

The flowers are small and white; and the seed-vessels are large, and full of oval seeds.

It is common on dry pastures, and flowers in July.

C. Bauhine calls it *Linum pratense flosculis exiguis*. Others, *Linum catharticum*. Our common people call it *Purging flax*, *Mountain flax*, and *Mill mountain*.

It is a great medicine with the country people for many disorders, the rheumatism, dropsies, and other complaints arising from obstructions.

They give it boiled in ale. A small handful, boiled in a pint of that liquor, is a dose for a strong man. It always operates violently by stool, and not unfrequently also by vomit.

DIVISION II. FOREIGN SPECIES.

1. Great hairy Flax.

Linum ceruleum hirsutum. *Herbar. 16*

The root is small, oblong, divided, and furnished with a few fibres.

The stalks are numerous and firm: they are three feet high, round, hard, brown, not much branched; yet, not altogether so single as in the common flax.

The leaves are oblong, considerably broad, of a pale green colour, and hairy.

They are placed irregularly on the stalks, and cloath them pretty thick all the way up.

The flowers grow all the way up the upper branches, and the tops of the stalks: they are very large, and of a beautiful blue.

The seed vessel is large and pointed; and the seeds are oval and of a pale brown.

It is common in Germany, and flowers in June.

C. Bauhine calls it *Linum sylvestre latifolium hirsutum ceruleum*.

2. Small yellow Flax.

Linum parvum flore luteo. *Herbar. 17*

The root is long, slender, and edged with fibres.

The stalks are numerous, slender, and six or eight inches high: they frequently divide into two from the base; but they are rarely branched upwards.

The leaves are small, oblong, narrow, and sharp pointed: they are placed irregularly on the stalks, and are perfectly smooth, and of a pale green.

The flowers are small, and of a gold yellow: they grow at the tops of the stalks, and on slender

der footstalks rising from the bosoms of the upper leaves.

These generally split into two at the extremity. The seed-vessel is small and pointed.

The seeds are oval and brown.

This is the species which has only three styles in the flower; whereas Linnæus's character gives all the flaxes five.

It is a native of the south of France, and flowers in June.

C. Bauhine calls it *Linum sylvestre minus flore luteo*.

3. Broad-leaved yellow Flax. *Herbar. 18*

Linum latifolium luteum ad genicula floridum.

The root is small, oblong, divided into several parts, and furnished with many long fibres.

The stalk is round, firm, and upright, but jointed, and usually bowed from joint to joint.

The leaves are short and broad: they have no footstalks, but are small at the base, broadest in the middle, and pointed at the ends; and they are placed irregularly on the stalks.

The flowers are moderately large, and of a pale yellow: they grow close to the stalks at its several joints, or at the insertions of the upper leaves.

The seed-vessel is large, roundish, and pointed; and the seeds are brown.

It is common in Italy, and flowers in August.

C. Bauhine calls it *Linum luteum ad singula genicula floridum*.

The virtues of these plants are not certainly known; but the taste of their seeds seems to shew they have all the same qualities with the common flax.

GENUS VI.

CRANESBILL.

GERANIUM.

THE flower consists of five petals. The seed-vessel is long and slender: it is very singular; it is properly a crust which envelops the several seeds, and which has a top extended along the style. As its form is singular, so is its manner of opening; for it splits in several parts from the base to the extremity of the style. The seeds are kidney-shaped. The cup is composed of five leaves, and remains when the flower is fallen.

Linnæus places this among the *monadelphia decandria*; the threads in the flower growing together in one body, and being distinctly ten in number.

This is one of those classes of that author which we call, with reason, perfectly artificial; for this coalition of the threads in a flower is not certain enough to become the mark of a classifical distinction, nor appears to have been regarded by nature so strictly as those parts and circumstances in all plants are, on which a natural method is to be founded.

Linnæus is obliged to acknowledge this, even in the most plain terms, in relation to the present genus.

After having separated it from all those other genera to which it is naturally allied, by placing it among these *monadelphia*, because its stamina grow into one body, he owns that in some of the species the flower is plainly of the *diadelphia* class; that is, the stamina unite into two bodies.

This divides the genus again: the plants whose threads unite into one body make the sixteenth class in Linnæus's method; and those whose threads unite into two bodies make the seventeenth: therefore, after the *cranesbills* being taken out of their natural place, the genus itself is to be divided,

and some of the species are to be put into one class, and others into another. This, nature abhors, indeed.

Unhappily for this author's system, the *cranebills* are characterised more thoroughly by their singular fruit than any other genus of plants whatever: they are therefore incapable of being thus separated; nor, though their difference in this slight respect seemed to render it necessary, has the author ventured to do it: he leaves it a blemish in his system.

Indeed, the determination of reason is plainly this, *That system which separates like genera, and places in distinct classes the plants evidently of the same genus, is false.* This censure falls directly upon the method of this celebrated author; and these two classes, the *monadelphia* and *diadelphia*, are proved by this instance, as others by those before-named, to have no real foundation in nature.

DIVISION I. BRITISH SPECIES.

1. Herb Robert. *Plate 29th*

Geranium pedunculis bifloris calycibus bifidis.

The root is small, long, divided, and hung with many fibres.

The leaves that rise immediately from it have long, weak, hairy footstalks of a red colour.

The leaves themselves are large, and beautifully formed: they are first divided into three or five parts, and these are afterwards deeply indented. They are of a tender substance, of a pale green, and lightly sprinkled over with white hairs.

The stalks are numerous, round, redish, and jointed: they grow in the centre of this tuft of leaves, and are a foot or more in length, but not perfectly upright: the leaves from these are divided in the same manner with those from the root, and are of the same pale green.

The flowers are moderately large, and of a bright red: they grow on slender pedicels, each splitting toward the end, and supporting two of them.

The fruit, or beak, is long, slender, and covered at the base where the seeds lie by the cup, which is hairy.

The whole plant has a very singular, but not disagreeable smell.

Toward the end of summer it frequently becomes throughout of a bright red colour, leaves, and stalks, and even the beaks.

It is common under hedges, and flowers in June.

C. Bauhine calls it *Geranium Robertianum*; and almost all the succeeding writers copy the same name.

This plant is an astringent of a very powerful kind; but is not enough known to those who might make its virtues a benefit to mankind. The farmers give it their cattle when they make bloody urine, or have bloody stools; and this with certain success: it should be brought into use in the shops on the same occasions.

2. Shining knotty Cranebill.

Geranium lucidum nodosum foliis dissectis.

The root is long, slender, divided, and of a red colour.

The first leaves are numerous, and they are supported on slender footstalks: they are divided deeply into five parts, and those again cut in at the edges: they very much resemble the leaves of the common *Herb Robert*; but they are not hairy,

as in that species, but smooth and shining, as are also their stalks.

The main stalks rise among them, and are more than a foot in length, but not upright: they are red, of a shining surface, and have frequent knots, which are large, and more glossy than the rest.

The leaves on it resemble those from the root.

The flowers are small, and of a faint red; and the seed-vessel, or beak, is long and slender.

It is frequent about our sea-coasts, and in many inland places. I have observed it among bushes on the right-hand of the road to Chichester. It flowers in June.

Ray calls it *Geranium lucidum saxatile foliis geranii Robertiani*.

It has the smell of the former, and probably its virtues.

3. Dove's-foot Cranebill. *Plate 29th*

Geranium columbinum vulgare.

The root is long, thick, divided into several parts, and furnished with fibres.

The leaves rise in a large tuft: they have long, weak footstalks, of a pale whitish green: the leaves are roundish and small; they are divided into eight or ten deeper segments at the edge, and these are again notched; but they are less cut in than those of many other of the *dovefoots*: they are of a pale green, and have something of the appearance of the mallow leaf in miniature.

The stalks are round, weak, and a foot or more in height: they are numerous, branched, and of a pale green.

The leaves are placed irregularly on these; and they resemble in all respects those from the root, but that they are deeper cut at the edges.

The flowers grow in considerable numbers at the tops of the stalks and branches; and they are of a beautiful purple, and moderately large.

The seed-vessel is small and slender; it stands enclosed in the cup at the base, and that is little and smooth.

It is common by way-sides, and flowers in June.

C. Bauhine calls it *Geranium folio malve rotundo*. Others, *Geranium columbinum*, and *Columbinum vulgare*.

Though common enough, it is not so frequent as many of the others; and many a young student has called the next species by its name.

The place where it is to be found nearest London is by the side of the road from Gray's-Inn lane half a mile from the street.

4. Great

4. Great dove's-foot Cranebill with little flowers.

Geranium columbinum majus flore minore ceruleo.

This is the plant many have confounded with the preceding in its name; and, having been taken for the same species, it has been omitted by most writers.

The root is long, slender, redish, and furnished with many fibres.

The leaves are numerous, and have very long footstalks: they are large, of a rounded form in the whole, but very deeply divided into several parts; and they are of a pale green colour, and covered with a soft silvery down.

The stalk is round, thick, upright, and two feet high: it is also of a greenish colour, though frequently red at the joints, and is covered with the same silvery down as the leaves.

The leaves upon this have long, slender, and weak footstalks, and are much more deeply divided than those from the root.

The flowers stand in considerable numbers towards the tops of the stalks: they are very small, though the plant is so large, and their colour is a faint blue.

The seed vessel, or beak, is long and slender.

It is common by way-sides, and flowers in July. Ray calls it *Geranium columbinum majus flore minore ceruleo*.

The flower in this species is sometimes white.

Ray found it in this condition near the lead mills on Hackney river, and it is frequent in the same place at this time in the same variation.

5. Dwarf Dove's-foot. *Plate 29th*

Geranium columbinum humile flore minimo ceruleo.

The root is oblong, slender, and divided, and has several fibres.

The first leaves are supported on long footstalks, five or six together, from the root; and they are broad and short, deeply divided into about seven parts, and those notched again at the edges.

The stalk is round, slender, upright, and not more than three inches high, several usually rise together; and they are of a pale colour, and seldom much branched.

The leaves on them resemble those from the root, but they are more deeply divided, and have shorter footstalks.

The flowers are numerous, and very small: the petals are divided at the tips, and they are of a faint bluish hue.

The beak is short, sharp, and small; and is enclosed at the bottom in a cup, which is large considering the smallness of the plant.

It is common on ditch sides, and flowers in spring. The shape of the flower and beak shew it plainly to be a distinct species; not, as might appear otherwise, a starved plant of some of the other kinds.

Ray calls it *Geranium columbinum humile flore ceruleo minimo*.

6. Dove's-foot Cranebill with deep cut leaves.

Geranium columbinum foliis profunde scissis.

The root is long, thick, divided into several parts, and hung with numerous fibres.

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The leaves that rise from it are supported on tall footstalks; and they are large, of a figure approaching in the whole to round, but divided by deep and frequent segments into very small and narrow parts.

The stalk is round, thick, upright, and a foot and half high: it is of a pale whitish colour, and very much branched.

The leaves on the stalk resemble those from the root, but are of a paler green, and more deeply divided.

The flowers are small, and of a bright red: they stand in great numbers toward the tops of the branches.

The beaks are large and long.

It is common about the hedges of dry pastures, and flowers in June.

C. Bauhine calls it *Geranium columbinum tenuius laciniatum*. J. Bauhine, *Gruinale folio tenuiter diviso*.

The flowers in this are also sometimes white.

7. Dove's-foot Cranebill with flowers on long footstalks.

Geranium columbinum dissectis foliis pediculis florum longissimis.

The root is long, slender, and hung with a few fibres.

The first leaves are numerous, and are placed on long footstalks: they are of a form approaching to round, deeply divided into segments, and of a dark dusky green.

The stalk is round, upright, firm, branched, and smooth: it is of a pale colour, and jointed at distances.

The leaves on it are like those from the root, but smaller; and they are also perfectly smooth, and deeply divided.

The flowers are supported on very long and slender footstalks; and they are of a bright red: they are moderately large, and the petals are slightly divided.

The beaks are large.

It is common in dry pastures, and flowers in July.

Ray calls it *Geranium columbinum dissectis foliis pediculis florum longissimis*.

8. The greatest dove's-foot Cranebill.

Geranium columbinum maximum.

The root is long and large, of a red colour, and furnished with numerous fibres.

The first leaves rise in considerable number, and are supported on very long footstalks: they are of a rounded figure, large, and deeply divided into numerous, narrow, and pointed segments.

The stalk is round, thick, upright, and three feet high.

The leaves on it are like those from the root, but more deeply divided; and the whole plant is covered with a silvery down.

The flowers are large and red, and they stand on footstalks, longer than those of the other kinds, but not at all comparable to those of the last species.

The beaks are large, long, and sharp.

It is frequent in our midland counties, and flowers in July.

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Some

Some have supposed it only a variety of the other *dove's-foot* with deep cut leaves; but, on comparing them, they are absolutely distinct. Ray calls it *Geranium columbinum maximum diffusis foliis*.

9. Bloody Cranebill.

Geranium hematodes. Macg. 9.

The root is long, thick, and divided into several parts.

The leaves that rise from it are numerous, small, and deeply divided: they have moderately long footstalks, and they are of a dusky green. Their segments are single and sharp-pointed.

The stalks are numerous, round, weak, and reddish: they are a foot long, but not very erect; and are greatly branched.

The leaves on these are like those from the root, and they have, in the same manner, moderately long footstalks.

The flowers do not grow from the tops of the stalks, but rise from the bosoms of the leaves: they have very long, slender footstalks, and only one flower is supported on each: this is very large, and of a deep blood red.

The beak is small, and is surrounded at its base by a large cup.

It is found among bushes in the southern counties of England, but is not common.

It flowers in July.

C. Bauhine calls it *Geranium sanguinarium*. Others, *Geranium sanguineum*, and *Hematodes*.

10. Pale hairy-leaved bloody Cranebill.

Geranium hematodes foliis pallideoribus hirsutis.

The root is long, thick, and furnished with numerous fibres.

The leaves that rise first from this are very numerous, and supported on long, slender footstalks: their figure approaches to round, but they are deeply divided into narrow segments, and they are hairy, and of a pale green.

The stalk is slender, hairy, whitish, and but indifferently able to support itself.

The leaves on it are, like those from the root, pale coloured, hairy, and very deeply divided; and they have short footstalks.

The flowers are large, and of a pale red; and they stand on separate long and slender footstalks rising from the bosoms of the leaves.

The beaks are long and large.

It is found in Cambridgeshire, and some other places, but is not common.

It flowers in July.

Ray calls it *Geranium hematodes foliis majoribus pallidioribus & aliis incis.*

11. Small bloody Cranebill.

Geranium hematodes pumilum.

The root is long, slender, and furnished with numerous fibres.

The leaves that first rise from it are numerous, small, of a roundish figure, but deeply divided into narrow segments, and placed on long footstalks: they are of a dusky green colour, and not in the least hairy.

The stalks are numerous, weak, round, and branched: they are six or eight inches long, but not perfectly erect.

Their leaves are small, and very deeply divided; and they are of the same deep green colour with those from the root, and also smooth.

The flowers are very large, and very beautiful: they stand singly on long footstalks rising from the bosoms of the leaves; and they are of a pale whitish colour, variegated with veins of red.

The beaks are small.

It is found in Lancashire and the adjoining counties; and flowers in August.

Ray calls it *Geranium hieratodes Lancastrense flore eleganter variegato*.

It has been suspected as only a variety of one of the first kind; and the seeds have been sown in gardens to try. In this case it becomes larger, but the leaves continue smaller, than those of the common kind; and the flower always continues variegated.

12. Crowfoot Cranebill.

Geranium Batrachoides. Macg. 4.

This is a very large and specious plant.

The root is long, thick, and furnished with abundance of fibres.

The first leaves rise in a large tuft: they are supported on long, slender footstalks, and are large and spreading: they are divided very deeply into numerous segments, which are again notched at their edges; and they are of a pale green, and hairy.

The stalk is thick, firm, upright, two feet high, and very much branched.

The leaves on it are numerous and large, and are divided more deeply than those immediately from the root.

The flowers are numerous, very large, and of a fine blue: they stand at the tops of the branches on short footstalks.

The beaks are long, and not very thick.

It is frequent in pastures in many parts of England. About Twickenham there is a great deal of it.

It flowers in July.

J. Bauhine calls it *Geranium batrachoides*. Others, *Gratia Dei*.

13. Red-flowered crowfoot Cranebill.

Geranium batrachoides flore minore rubente.

The root is long, thick, and furnished with a multitude of long and crooked fibres.

From this rise first four or five leaves, rarely more: they are large, broad, and of a deep green colour; and shining surface: they are supported on long footstalks, and are cut into several divisions at the edges, but not so deeply as those of the former species.

The stalk is round, upright, but slender, somewhat branched, and a foot and half high.

The leaves that stand on it resemble those from the root, but they are smaller, and more deeply divided.

The flowers stand at the tops of the stalks and branches on short footstalks, and are considerably

derably large, but not nearly so big as those of the former: their colour is a fine bright red.

The beaks are long and large.

It is found among bushes in our northern counties; and flowers in August.

Ray calls it *Geranium batrachoides montanum*.

C. Bauhine, *Geranium batrachoides folio aconiti*.

Others, *Geranium batrachoides minus*.

14. Shining dove's-foot Cranebill.

Geranium lucidum saxatile columbinum.

The root is long, slender, and furnished with many fibres.

The first leaves in shape somewhat resemble those of the common dove's-foot cranebill, but they are of a deep green colour, and shining surface: they are more grossly indented, and they stand on long, thick, red footstalks.

The stalks rise among these leaves, and they are very irregularly branched, and rudely jointed: they also are red and shining; their joints are large and knotty; and their branches spread with great irregularity: they are a foot and half long, but they do not stand very erect.

The leaves on the stalks are less indented than those at the root, and are of the same glossy surface and dark colour.

The flowers are small, and of a faint red:

The beaks also are small.

It is frequent in our northern counties and elsewhere. There is a great deal of it among the bushes on the right hand of the road to Richmond.

It flowers in June.

C. Bauhine calls it *Geranium lucidum saxatile*.

Others, *Geranium saxatile*.

15. Knotty Cranebill with trifid leaves.

Geranium nodosum foliis trifidis. Macg. 10.

The root is long, irregular, and creeping.

The first leaves are few; and are supported on long, slender, reddish footstalks: they are small, and of a deep green colour and shining surface: they are each divided into three principal parts, and two smaller at the base; so that these are properly quinquifid, though those on the stalks are, as the name expresses, only trifid: those segments of the leaves are long, narrow, and sharp-pointed; and they are sharply serrated at the edges.

The stalk is round, upright, and of a blood red colour usually; it is divided into many branches in the upper part, and has large, thick, and swelling knots at the joints.

The flowers stand on short footstalks at the tops of the branches, commonly two, on each footstalk: they are moderately large, and of a bright red.

The beaks are long and slender.

It is found in some of our northern counties; and flowers in June.

C. Bauhine calls it *Geranium nodosum*. Others, *Geranium nodosum plateau*.

The whole plant frequently becomes in autumn blood red.

16. Black-flowered Cranebill.

Geranium flore pullo. Macg. 9.

The root is long, slender, and furnished with many fibres.

The leaves that rise from it are large, broad and angulated: they are placed on long footstalks, and they are divided by deep segments into five or six principal parts, which are pointed at the ends, and notched at their edges: they are of a dusky green colour; and often are spotted.

The stalk is round, firm, very upright, and two feet high: it is of a pale brown colour, and very little branched.

The leaves stand irregularly on it, and at distances: those toward the bottom resemble the first leaves from the root; but such as grow near the top are divided only into three parts, which are long, narrow, and notched.

The flowers are large and black: they stand on slender footstalks on the tops of the branches; and these usually split, and sustain each two flowers.

The beaks are moderately long.

It has been found wild in some few parts of England, and of late in Ireland. It flowers in July.

C. Bauhine calls it *Geranium montanum fuscum*. Others, *Geranium pullo flore*.

17. Sea Cranebill with undivided leaves.

Geranium maritimum foliis integris. Macg. 10.

The root is long, slender, divided, and furnished with many fibres.

The stalks are numerous, thick, jointed, and of a pale green: they are five or six inches long, and spread every way upon the ground, none of them rising upright, unless by accident: they are thick set with leaves, and divided into numerous branches.

The leaves are undivided: they are oblong and broad, obtuse at the ends, and slightly crenated round the edges: they are of a pale green, and they have a great deal of resemblance to the leaves of betony, only they are smaller.

The flowers stand on short footstalks rising from the bosoms of the leaves, principally toward the ends of the branches: they are small and whitish, with a blush of red.

The beaks are short and small.

It is frequent on barren, sandy grounds about the sea-coast; and flowers in June.

Ray calls it *Geranium pusillum supinum maritimum albae, vel potius Betonica folio*. Merret, *Geranium betonica folio*.

18. Pinnated-leaved Cranebill without scent.

Geranium foliis pinnatis inodorum. Macg. 11.

The root is long, thick, and furnished with many fibres.

The leaves that first rise from it are large and pinnated; and they are beautifully disposed, making a round tuft upon the ground: they are long, narrow, and of a pale, pleasant green: each is composed of six or more pairs of pinnæ, or smaller leaves, set on a middle rib, with an odd one at the end.

The

The stalks rise among these: they are numerous, thick, and of a pale green: they spread themselves every way, and are very much branched.

The leaves on these resemble those from the root, but they are smaller, and their pinnae, as those of the others, are very deeply cut in at the edges, and sharp-pointed.

The flowers stand on the tops of the stalks and branches on slender, long footstalks, each supporting three or more: they are moderately large, and of a beautiful red.

The beaks are large, and sharp.

It is common on ditch-banks, and flowers all summer.

C. Bauhine calls it *Geranium cicutæ folio minus et supinum*. Others, very idly, *Geranium moschatum inodorum*; because it resembles the musk cranebill, next to be described, in figure, but has not its smell. Our people call it *Unfavoury cranebill*.

19. Musk Cranebill. *Plag. 12*

Geranium foliis pinnatis moschatum.

The root is long, white, thick, and furnished with many fibres.

The leaves that first rise from it are long, and beautifully pinnated: they lie spread upon the ground in a circular manner, and are of a pleasant green: each is composed of many pairs of pinnae placed on a middle rib, and an odd one at the end; and these are not so deeply cut in at the edges as in the preceding species; often only notched slightly.

The stalks are numerous, thick, round, and hairy; they rise in the centre of the tuft of leaves, and spread every way; and they are very much branched.

The leaves on these resemble those from the root, and are cut, in the same manner, slightly at the edges, and of a pale green: the whole plant has a very sweet scent, resembling that of musk.

The flowers are small and red: they stand several together in a kind of little umbels.

The stalks are long and slender.

It is wild in our southern counties, and has been thence for its scent brought into gardens. It flowers in June.

C. Bauhine calls it *Geranium cicutæ folio moschatum*. Others, *Geranium moschatum*.

20. Great pinnated-leaved Cranebill.

Geranium foliis pinnatis maximum.

The root is long and thick, and is furnished with numerous fibres.

The first leaves are very long, and large: they

lie spread upon the ground, and are of dusky green. Each is composed of a great many pairs of pinnae, and these are broad, short, and indented more slightly at the edges than in either of the former.

The stalks are numerous, round, thick, and fleshy: they are two feet long, not much branched, and they have leaves on them like those from the root.

The flowers are small and white, never having the least tinge of red: they stand at the tops of the stalks and branches on long footstalks, two or three on each, rarely more.

The beak is large and sharp.

It is common in our southern counties; and has been found by Mr. Ray in the neighbourhood of London.

Tabernaemontanus calls it *Geranium arvense album*. Others, *Geranium inodorum album*.

21. Pinnated Cranebill with spotted flowers.

Geranium foliis pinnatis floribus maculatis.

The root is long, thick, and divided into many parts.

The leaves rise in a round tuft, and are very beautiful: they are long and narrow, and each is composed of several pairs of pinnae, with an odd one at the end: these are short, broad, and slightly serrated; and the whole leaf has much the aspect of burnet leaf, whence some have named the plant.

The stalks are round, whitish, and branched; and the leaves which grow on them are like those from the root in all respects, only they are smaller.

The flowers are moderately large, and of a singular structure: they are composed each of five petals, in the manner of the others; but these are broad and unequal: the two upper ones are shorter than the others, and each has a green spot.

The beak is small and slender.

It is found in Yorkshire; and has been observed nearer London, particularly about Hackney.

Dillenius calls it *Geranium pimpinelle folio*. Some have called this species *Geranium Robertianum*; but that breeds confusion, another species having been long universally known by that name.

All the species of cranebill are refringent and vulnerary. They are good against inward bruises, and in hæmorrhages of all kinds.

A strong decoction of the herb Robert stands recommended as excellent in nephritick complaints; and the dove's-foot cranebill is, in the same manner, recommended against ruptures: they have not been so much used in the practice of physick as they appear to deserve.

DIVISION II. FOREIGN SPECIES.

1. Cranebill with divided and subdivided leaves.

Geranium tuberosum floribus umbellatis. Plag. 13

The root is large, thick, tuberous, and irregularly formed.

The first leaves are numerous and very beau-

tiful: they are large, broad, and deeply divided and subdivided: each is formed of two or three pairs of large segments, resembling wings, and an odd one at the end; and these segments are again deeply divided in the same manner, but none of these divisions go down to the middle

rib; so that they are only the incisions of an entire leaf.

The stalks are round, upright, firm, and jointed.

Their joints are distinguished by a little hollow membrane; and from these rise the leaves.

They resemble in all respects those from the root, except that they are smaller.

The flowers are large and beautiful; and they are disposed in a kind of umbell: they stand eight or ten together at the top of the stalk, and at the extremities of the branches: each has its long, slender footstalk, and these all grow from one point at the top of the main stalk, where there is a small general cup.

The beaks are very long, large, and sharp.

It is a native of the East Indies, and flowers in August.

The flowers toward evening have an extremely fragrant smell, but in the day-time it is not perceived.

Breynius calls it *Geranium noctu olens Aethiopicum radice tuberosa foliis myrribidis latioribus*. Others, *Geranium trifide*.

2. Silvery alpine Cranebill.

Geranium argenteum alpinum. Plag. 14

The root is long, thick, brown and irregular.

The leaves are numerous, small, and supported on long footstalks: they are divided deeply into five or more segments, and each of these is notched on the two sides near the top; so that the extremity has a trifid appearance.

The stalks are slender and weak: they rise in considerable number among the leaves, and are of a pale whitish colour: they divide toward the top into two parts, and supports on each of the divisions a single flower.

The whole stalk is rarely above four inches in height; so that the flowers do not rise above the leaves.

They are large, and of a beautiful strong red, striated with purple.

The beaks are short and thick.

It is not uncommon on the Alps, and flowers in July.

C. Bauhine calls it *Geranium argenteum Alpinum*. Others, *Geranium Alpinum longius radicatum*; and *Geranium argenteum montis baldi*.

3. Candy Cranebill. *Plag. 15*

Geranium creticum acu longissima.

The root is long, slender, and white.

The first leaves are large, and are supported on long footstalks: they are each composed of two or three pairs of pinnae, or smaller leaves, with an odd one at the end: this is much larger than the others, and they are all notched at the edges: their colour is a faint green.

The stalk is round, thick, jointed, branched, of a pale green colour, and a foot and half high.

The leaves that stand on it perfectly resemble those at the root, but they are smaller.

The flowers stand at the tops of the stalks and branches in tufts three, four, or five together; and they are large, and of a bright red.

The beaks are extremely large, and long, sharp-pointed, and of a greenish yellow.

It is frequent in the Greek islands, and flowers in June.

C. Bauhine calls it *Geranium acu longissima*.

4. Broad-leaved hairy Cranebill.

Geranium latifolium hirsutum. Plag. 16

The root is long, slender, divided, and white.

The first leaves rise in a thick tuft, and are unlike those of most of this genus: they are large and broad, approaching to an oval figure, slightly serrated, and notched irregularly about the edges: they are of a pale green covered with a slight silvery down, and stand on long, slender, hairy footstalks.

The stalk rises in the centre, and is round, thick, upright, of a pale green, hairy, and a foot and half high.

The leaves on it perfectly resemble those from the root: they are small, and soft to the touch.

The flowers grow in tufts six or eight together at the top of the stalk, and at the extremities of the branches: they are small, and of a pale red.

The beaks are small, and very slender.

It is a native of Italy, and flowers in July.

C. Bauhine calls it *Geranium folio albææ*. Others, *Geranium malacoides*, and *Geranium malvaecum*.

Linnaeus supposes our little sea cranebill, before described, to be the same species with this; but it differs in the form and disposition of the flowers, and in the structure of the beaks.

This author has also a much more extraordinary conjecture on the present head; he imagines that this plant, the candy cranebill, and the musk cranebill, and common pinnated cranebill without scent are all the same species originally.

This is bringing in confusion, and without any foundation in nature or reason. If these five plants be not distinct species the student will never know what to call by that name: he needs only be referred to the several figures here, or to the plants as they grow, to see that they differ as palpably, and as essentially, as the species of any other genus. If these were all originally one, nature has given us no means of knowing which are truly distinct: but these are innovations that will soon be slighted.

5. Stinking Cranebill.

Geranium fetidum. Plag. 20

The root is tuberous and oblong; of a redish colour, and very stinking smell.

The leaves are small, but beautifully divided, or, more properly speaking, composed of many others: each general leaf is supported on a short slender footstalk, and is formed of four or five pairs of pinnae set on a middle rib, with an odd one at the end; and each of these pinnae is again composed of five or six pairs of minute, oval leaves set on a middle rib, with an odd one at its end.

The stalks are numerous, slender, and weak: sometimes they are altogether naked, but sometimes they have a couple of little leaves toward their lower part.

The flowers are moderately large, and of a bright red: they stand on slender footstalks, one, two, or more together.

The beaks are large.

The whole plant in its wild state has a disagreeable smell, though not so strong as the root.

It is a native of the mountainous parts of Europe, and flowers in June.

The generality of authors call it *Geranium fetidum*.

6. Tuberous-rooted Cranesbill. *Hog-17*

Geranium foliis multifidis radice tuberosa.

The root is large and knobby; of a dusky colour, and insipid to the taste.

The leaves are numerous, and beautifully divided: they stand on long, slender, hairy footstalks; and they are themselves a little hairy, and of a pale green: their figure approaches to round, but they are cut into nine or more segments down to the middle rib; and these are again deeply notched, and divided.

The stalk is round, upright, but weak, and a foot high: it is not much branched.

The leaves on it resemble those from the root, but that they are smaller.

The flowers are large, and of a bright red: they stand on slender pedicles rising from the bottoms of the leaves, two on each.

The beaks are long, and moderately thick.

It is a native of Spain, and flowers in August.

C. Bauhine calls it *Geranium tuberosum majus*. Others, *Geranium tuberosum vel bulbosum*; and the gardeners, *Bulbous cranesbill*.

7. Purple African Geranium. *Hog-100*

Geranium Africanum flore purpureo.

The root is long, thick, and tuberous.

The first leaves are large, numerous, and supported on long, hairy footstalks: they are very broad, sinuated at the edges, and of a pale green, slightly hairy, and soft to the touch.

The stalk is round, firm, erect, and irregularly branched.

The leaves on it are of the same form with those from the root; and they grow principally

near its bottom: it is of a pale colour, and so are the leaves.

The flowers stand at the tops of the branches in large tufts; and they are very beautiful: they are large, and of an elegant red tending to purple, and have yellowish edges.

The beaks are large.

Before sun-rise, and after it is set, the whole plant has a very fragrant smell; but it is not much perceived in the middle of the day.

It is a native of Africa, and flowers in July.

Commelin calls it *Geranium Africanum nostrum oleum tuberosum vitis foliis hirsutum*.

There are many varieties of this preserved in our gardens.

8. Naked-stalked African Geranium.

Geranium Africanum caule nudo. Hog-119

The root is composed of numerous fibres rising from a small head.

The leaves rise in great numbers, and have long footstalks; but these are so weak that the leaves are seldom supported tolerably erect: they are not unlike laurel leaves in shape, long, broad, and not at all dented at the edges: they usually have a couple of small leaves placed on the footstalk, in the manner of ears, a little below their base.

The stalks are numerous, round, slender, and a foot high: they are usually naked, but sometimes have, toward the ground, a leaf or two, like those which grow on the footstalks of the others.

At the top of each stalk stands a large tuft of flowers, twenty or more: each flower has its separate footstalk; and they all rise from one point at the top of the stalk, where there is spread under them a kind of general cup, formed of five little, oblong leaves.

The flowers themselves are large, and of a beautiful red, tending to purple; and the beaks are small.

It is a native of Africa, and flowers in July.

Commelin calls it *Geranium Africanum foliis plerumque auritis flore rubro purpurascens*.

We know little of the virtues of these plants; but they seem in general of the same nature with those of our own growth.

The END of the TENTH CLASS.

THE

THE

BRITISH HERBAL.

CLASS XI.

Plants whose flower is composed of FIVE PETALS irregularly disposed; which have a SINGLE CAPSULE succeeding each flower, and have the leaves placed irregularly on the stalks.

THE plants with five petals in the flower, and a single capsule, are very numerous; and, therefore, the observing such subordinate characters as nature has placed between them is the more necessary: had there been fewer of them, the whole might have been disposed in one class; and these general distinctions, from the structure of the flower, and disposition of the leaves on the stalks, would only have subdivided them: but nothing perplexes the student so much as too great a multiplicity of objects under the same head. It is for this reason I have again separated many of those genera which Linnæus had joined together; and, for the same cause, this assortment of plants is disposed under three classes: nature has furnished sufficient grounds for the distinction, and they are sufficiently obvious; the science therefore will be rendered more familiar, by following this method in her steps.

Linnæus, in this, as in other cases often before mentioned, separates the plants belonging to one into several of his most remote classes: I shall be content to name this where needful in the accounts of the several genera, not to fill too many pages with a criticism, which, however needful to the service of the science, I never make without concern.

SERIES I.

Natives of BRITAIN.

Those of which one or more species are naturally wild in this kingdom.

GENUS I.

VIOLET.

VIOLETA.

THE flower is composed of five petals of unequal size; one is placed singly, and the other four in two pairs: the single petal is broad, short, obtuse, and nipp'd at the top; and it runs out into a spur behind. The two side-petals are oblong and obtuse, and the two others larger and broader: this is the structure of the flower. The seed-vessel is of an oval form, with three slight ridges: it is composed of three valves, and contains only one cell: the cup is small, composed of five leaves irregularly disposed, and remains when the flower is fallen.

Linnæus places this among the *syngenesia*, *polygamia monogamia*; an idle, intricate, and unnatural class; separating it from the other genera to which it is properly allied.

DIVI-

DIVISION I. BRITISH SPECIES.

1. Common Violet. *Pl. 30.1**Viola purpurea vulgaris.*

The root is long, slender, crooked, and furnished with numerous fibres.

The leaves are large, and they rise many together from the head of the root, and with them rise several slender stalks, that, lying upon the ground, take root, and spread the plant abundantly.

The leaves are broad, short, and roundish, but heart-fashioned at the base: they are of a deep green, slightly crenated at the edges, and supported on long, slender footstalks.

Among these rise numerous, slender, weak, and naked stalks; on each of which stands a single flower.

This is large, of a deep, beautiful blue, and of an extremely sweet smell.

The seed vessel is large, and the seeds are numerous and oval.

It is common under hedges, and flowers early in spring.

C. Bauhine calls it *Viola martia purpurea flore simplici odore*. Others, *Viola nigra vel purpurea*, and *Viola martia simplex*.

This is the species whose flowers should be used, and no other: they are cooling, emollient, and gently cathartick; as they lose a great part of their virtue in drying, and are not to be had fresh, except in spring, the best method of using them is in the form of a syrup.

This, when carefully made, is very pleasant, and has all the virtues of the flowers. It is excellent, mixed with oil, to keep children open; and, in the same form, it may be given with great success against habitual costiveness in grown persons; taking a small dose every night.

It is also good in coughs and hoarsenesses.

The seeds, dried and powdered, work gently by stool and urine. They are excellent in the gravel, and in nephritick complaints in general.

The leaves are emollient, and used in decoctions for glysters. Too large a dose of the seeds will occasion vomiting.

Many authors have described what they call the *white-flowered violet* as a distinct species from the common; but this is an error. We see many plants whose flowers, though naturally coloured, will become white when they are starved; and this is the case in the *white violet*: its seeds will raise *blue violets*, in a garden.

2. Dogs Violet.

Viola foliis oblongis caulescens. Pl. 30.2

The root is very long, slender, divided, and furnished with long, crooked fibres.

The first leaves are numerous, and of a dusky green: they are supported on long, slender footstalks, and are smaller than those of the *common violet*, and narrower in proportion to the length: they are heart-fashioned at the base, and notched round the edges.

Amongst these rise several small stalks, which take root where they touch the ground, but grow up from it to two or three inches in height, and have many leaves on them, like those from the root, but smaller.

The flowers stand singly on long, slender footstalks that rise from the root, or from those parts of the stalk just named, which have taken root: they have usually some little films upon them, but no leaves, properly so called.

The flower resembles that of the *common violet*, but it is smaller, of a paler blue, and has no smell.

It is common under hedges, and flowers in April.

C. Bauhine calls it *Viola inodora sylvestris*. Others, *Viola sylvestris*, and *Viola canina*.

This is sometimes found with a white flower, as the other; and some have described it in that state as a distinct species.

3. Dwarf Violet with a yellow spur.

Viola pumila calcari luteo. Pl. 30.3

The root is small, oblong, and divided; and has numerous, slender fibres.

The leaves that rise first from it have short footstalks: they are small, rounded, and of a dusky green; very slightly snip'd at the edges, and scarce at all cordated at the base: this form they constantly keep, and the species is therefore plainly distinct.

The stalk is slender, upright, and of a pale green; and at the top sustains a single flower: this is large in proportion to the plant, and is of a beautiful deep blue, with a yellow spur behind.

The seed-vessel is oval, and the seeds are numerous and also oval.

It is not uncommon in Surry and Suffex. It flowers in April.

Ray calls it *Viola canina minor floris calcari luteo*.

4. Round smooth-leaved Violet.

Viola foliis rotundioribus glabris.

The root is long, slender, and furnished with numerous fibres.

The leaves rise in a considerable tuft, and they are shorter than in the preceding species, and obtuse at the ends; so that they appear roundish: they are of a deep green colour, and perfectly smooth.

The flowers stand on single footstalks, which are weak, slender, and five or six inches high: they are of a pale blue, of the shape of the *common violet*, but very small, and wholly scentless.

The seed-vessel is small and oval; and the seeds are small.

It was observed first in Oxfordshire, but it grows all over the north of England on boggy grounds. It flowers in June.

Dr. Plot, who first described the species, calls it *Viola palustris rotundifolia glabra*.

5. Short-leaved Violet with striated flowers.

Viola foliis brevibus floribus striatis. Pl. 30.4

The root is a cluster of innumerable, slender fibres.

The leaves grow in a great tuft: they have short and weak footstalks, and many of them lie upon the ground: they are roundish, but heart-fashioned at the base, and somewhat pointed at the end; of a pale green, hairy, and soft to the touch.

The flowers stand on very short footstalks, and are smaller by much than in the *common violet*: they are of a faint red, beautifully streaked with a deep purple.

The seed-vessel is oblong, and the seeds are very numerous.

It is frequent in the northern parts of England under damp hedges. It flowers in May.

Ray calls it *Viola rubra striata eboracensis*: a name given by Parkinson, who first received it from Yorkshire.

6. Great hairy Violet with striated flowers.

Viola major hirsuta floribus striatis.

The root is long, thick, hard, and woody.

The leaves rise from its head, four or five together, and are very hairy, of a pale green, oblong, heart-fashioned, and notched at the edges; and they have very long, whitish, hairy footstalks.

These and the flower-stalks are all that rise from the root; for it does not send out any hanging shoots that take root, as the *common violet*; nor any of those leafy stalks that are in the *common dog violet*.

The footstalks which support the flowers are short and thick.

The flowers are large, but of a faint pale blue, streaked with white.

The seed-vessel is large and short; and the seeds are very numerous.

It is frequent under hedges, and flowers in June.

Ray calls it *Viola trachelii folio*. Morison, *Viola martia major hirsuta inodora*. Merret, *Viola foliis trachelii ferotina*.

7. Pansy, or Hearts-ease.

Viola tricolor major. Pl. 30.5

The root is long, slender, divided, and full of fibres.

The stalks are numerous, weak, and of a faint green: they spread every way upon the ground, and in part raise themselves up for flowering: they are six or eight inches long, and branched.

Those leaves are short, roundish, and lightly indented, which grows on the lower part of the stalks; but many of the others are longer, and more deeply cut; and some toward the top divided to the rib by numerous segments.

They are of a deep green, and smooth surface.

The flowers are very beautiful; they are variegated with purple and yellow; and there is usually more or less white, or blue, among them. These two colours are the more striking in this flower, but from one of those, which comes in, though in a less obvious manner, as a third, the

plant obtained its Latin name of *Viola tricolor*, and its English one of *three faces under a hood*.

The seed-vessel is short and small; and the seeds are numerous.

It is found wild among corn in the north of England, and has thence been brought into our gardens.

In its wild state it is lower in the stalk, and the flowers are small and less specious.

Frequently there are only two colours in them, but those are bright and striking. We have another wild species, to be described hereafter, with two faint colours, is distinct, and must not be confounded with this.

Ray calls this *Viola tricolor*. Others, *Viola tricolor major et vulgaris*. J. Bauhine, *Flor trinitatis*.

8. Small-flowered Pansy.

Viola bicolor foliis minoribus. Pl. 30.6

The root is a tuft of slender fibres.

The first leaves are roundish, and sharply serrated at the edges.

The stalks are slender, upright, and weak; and they are very little branched: they are of a pale yellow colour, and six or eight inches high.

The leaves that grow on these are oblong, narrow, and very deeply divided: they are of a pale green, thin, and tender.

The flowers are numerous and small, and they have very little beauty, and are generally variegated only with white and a dead yellow.

The seed-vessels are small and roundish; and the seeds are very minute.

It is common in corn-fields throughout the kingdom; and flowers in June.

C. Bauhine calls it *Viola bicolor arvensis*. Others, *Viola tricolor sylvestris*. J. Bauhine, *Jacca bicolor frugum et hortorum vitium*.

9. Great-flowered yellow Pansy.

Viola lutea grandiflora. Pl. 30.7

The root is long, slender, and furnished with a great number of fibres.

The first leaves are oblong, broad, and not at all divided at the edges; but they sometimes, though not universally, have a couple of little appendages, like ears, at the base.

The stalks are slender, weak, and four or five inches high.

The leaves on them are partly divided deeply, and partly whole, in the manner of those from the root; and they are of a deep green, and glossy.

The flowers are very large, of the shape of the *garden pansy* flower, more than equal to it in size; and of a fine gold yellow colour, without the least mixture of any other.

They stand upon very long, slender footstalks rising from the bosoms of the leaves; and, when fully open, make a very splendid and elegant appearance.

The seed-vessel is small, and the seeds are numerous.

It is found in many parts of the north of England, and flowers in July.

Ray calls it *Viola montana lutea grandiflora nostras*. Others, *Viola flamma*.

These are all the species of wild-violet. Others have been named by less accurate writers, but on a better examination they have been found only varieties of one or other of the former species.

These all are supposed to possess the same vir-

DIVISION II. FOREIGN SPECIES.

1. Fingered-leaved Violet.

Viola foliis digitatis. Moench.

This is of the common violet, not of the pansy kind, though extremely singular in the leaf.

The root is composed of numerous fibres, rising from a small head.

The leaves are supported on long, slender, reddish footstalks, and are broad, and divided in the fingered or palmated manner, each into about five parts: these segments stand wide asunder: they are slightly notched at the edges, and the two outer pieces are broader than the others.

The whole leaf is small, and its colour is a pale green.

The stalks which support the flowers rise among the leaves; they are weak, slender, and about three inches high.

One flower stands on each, and this is small and white.

The seed-vessel is short, and full of small seeds. There is little beauty in the plant; but it is extremely singular.

It is a native of North America, and flowers in April.

Plukenet calls it *Viola Virginiana platanifolia foliis parvis*.

There sometimes are running shoots from the root, as in the common violet.

2. Seven-leaved Violet.

Viola foliis septempartitis.

The root is long, slender, crooked, and furnished with many fibres.

The leaves rise in a large tuft, and each is supported on a long, slender footstalk: they are large, and divided into seven parts down to the stalk: these segments are narrow, and stand so perfectly separate that the name of seven-leaved seems hardly exceptionable, though, in reality, these which appear to be separate leaves are no other than the seven segments of one entire leaf.

The stalks which support the flowers rise in numbers from the root, in the manner of the common violet. They are short, slender, and each supports a single flower.

This is large and beautiful; sometimes of one colour, which is a rich, deep blue, but oftener variegated; so that it seems a pansy growing in the manner of the common violet.

It is a native of Virginia, and flowers in April.

Plukenet calls it *Viola Virginiana tricolor foliis multifidis cauliculo apophyllo*.

tues with the common kind, but in a less degree; and therefore they are not to be regarded.

The flowers of the pansy have, with some, the credit of being a cordial and sudorific; and there are those who recommend them in epilepsies; but this does not stand upon any warrant of experience.

3. Great upright Violet.

Viola erecta maxima foliis cordatis.

The root is composed of numerous fibres, which are long, tough, crooked, and divided.

The first leaves are small and oval: they soon fade and perish.

The stalks are numerous, round, firm, upright, not much branched, and of a pale green colour: they are a foot or more in height, and very robust.

The leaves on these are large, longish, and somewhat heart-fashioned: they have long footstalks, and they are slightly notched at the edges; and at their base on the stalk grow smaller and more jagged ones.

The flowers stand on long footstalks rising from the bosoms of the leaves, one on each: they are large, and usually of a pale blue; sometimes deeper; sometimes white; and sometimes variegated.

The seed-vessel is large, and the seeds are numerous.

It is a native of the mountainous parts of Europe; and flowers in June.

C. Bauhine calls it *Viola maritima arborescens purpurea*. Morison, *Viola erecta flore cerulea et albo*.

4. Kidney-leaved Violet.

Viola erecta foliis reniformibus.

The root is composed of many tough, and spreading fibres.

The leaves are numerous, and very beautiful: each has its separate long and slender footstalk; and their shape is, like that of a kidney, hollowed at the base, and notched round the edges.

The stalk rises in the centre, and is round, upright, and not at all branched.

It has three or four leaves resembling those from the root, but smaller; and at the top it divides into two parts.

On each of these stands a flower: this is a perfect violet: and its colour is throughout a fine deep yellow.

The seed-vessel is small, and the seeds are numerous and little.

It is an extremely singular plant.

Till it flowers it would, by most persons, be taken for the thora, described before in its proper class.

It is a native of the northern parts of Europe, but not of England; and is most frequent on cold, barren mountains.

It flowers in June.

C. Bauhine calls it *Viola alpina rotundifolia lutea*. Others, *Viola rotundifolia montana major*.

Oval

5. Oval serrated-leaved Pansy.

Viola foliis ovalis serratis erecta.

The root is long, slender, and full of fibres.

The stalks are numerous, round, slender, upright, and very much branched.

The leaves are broad, short, and of a figure approaching to oval: they are sharp-pointed, and sharply serrated; and they adhere by a broad base without any footstalk.

The flowers are large, and of a deep purple,

variegated with white and yellow: they have short and slender footstalks, and are very beautiful.

The seed-vessel is small, and the seeds are numerous.

It is a native of Africa, and flowers in August. Plukenet calls it *Viola furesta latiore folio species peregrina*.

These foreign violets possess the same virtue with ours, but none of them is equal to the common kind.

GENUS II.

IMPATIENT.

IMPATIENS.

THE flower is composed of five petals of unequal size, and irregularly disposed: these are one upper, two lower, and two intermediate: the upper petal is short, upright, and lightly snipp'd into three parts at the top: the lower pair are large, broad, unequal, and reflex; and they make a kind of lower lip, as the single petal above does an upper one: the intermediate pair are placed opposite to one another, and there is a spur behind.

This is the structure of this singular flower.

The seed-vessel is of an oblong figure, and pointed: when the seeds are ripe it bursts with violence on the least motion even of the wind.

The cup is composed of two very small leaves: they are placed side-ways of the flower, and fall with it; and they are not green, as in most plants, but coloured.

Linnaeus places this among the *syngenesia polygamia monogamia*, one of his artificial classes; and he joins with it the *balsamina*. This is very wrong, because the shape of the seed-vessel is altogether distinct; and there are other obvious and essential differences.

Ray has, by some oversight, also misplaced this plant: he has put it among the *tetrapetala*, or those with four-leaved flowers and single capsules, whereas the petals are very distinctly five.

Of this genus, thus strictly characterised, there is but one known species; and that is a native of Britain.

Yellow Impatient.

Impatiens flore flavo. Moench.

The root is composed of numerous large fibres.

The stalk is round, thick, upright, branched, and two feet high: it is of a pale green colour, of a firm, yet tender, substance, and looks in a manner clear, or transparent.

The leaves are oblong, broad, and sharply serrated: they stand irregularly on the stalks: they have short pedicles; and the parts of the stalks where they grow, frequently swell into a kind of thick knots.

The flowers are large, numerous, and of a deep yellow: they have an open mouth, and a crooked spur.

The seed-vessels are oblong and brown; and

they contain many seeds: they will burst open on but approaching to touch them; the motion in the air, caused by the hand, being sufficient.

It is found in our northern counties in damp places; and flowers in August.

C. Bauhine calls it *Balsamine lutea five noli me tangere*. Others, *Mercurialis fylvestris*, and *Noli me tangere*. We have it as a curiosity in many gardens; where the gardeners call it *Quick in hand*, or *Touch me not*.

The leaves, bruised and applied to the skin, will raise an inflammation.

Inwardly taken, it is a powerful but dangerous diuretick; occasioning bloody urine, and terrible stranguries, when given in an over-dose.

GENUS III.

DYERS-WEEED.

LUTEOLA.

THE flower consists of five petals, unequal in bigness, and irregularly disposed: the upper one stands single, and is small, and lightly divided into six parts at the tip; the two side-ones are placed opposite to one another, and are divided each into three at the extremities; and the two lower are minute and undivided: they are so small that they are often overlooked; and the flower seems to consist only of three petals.

The

The seed-vessel is uneven and angulated, with an opening at the top, surrounded with three little points, which are the remains of the styles: the cup is small, and formed of a single piece, divided into five parts, two of which stand wider asunder than the rest.

Linnaeus places this among his *polyandria trigynia*; the filaments being numerous, and growing to the receptacle; and the styles being three.

This author joins the *reseda* in one genus with this, and thence has created himself a great deal of trouble and confusion.

He complains of the difficulty of establishing a character for this genus: but if he had avoided that confusion of joining a distinct one to it, and had paid more regard to larger parts, and less to the more minute, the task would have been easy, and the student's path, which is perplexed in the highest degree in this method, would have been rendered plain and easy, as we shall shew it in ours.

DIVISION I. BRITISH SPECIES.

1. Common Diers-weed.

Luteola vulgaris. *N^o 30. 14*

The root is long, white, divided into several parts, and hung round with many threads.

The first leaves rise in a large and beautiful tuft: the outer ones are long and narrow; and the others shorter all the way to the centre: they have no footstalks: they are not at all indented at the edges; and they are of a bright green.

The stalks are strait, upright, slender, not at all branched, and three feet high.

The leaves on them are placed irregularly, and are of the same form with those from the root; but of a yellowish green.

The flowers are small and yellow: they stand in a long spike at the top of the stalk.

The seed-vessels are large, and the seeds extremely numerous, and small.

It is common on ditch-banks, and in other waste ground; and flowers in July. It is also cultivated in fields in some places for the use of the diers.

C. Bauhine calls it *Luteola herba felicitis folio*. Others, *Luteola*, and *Herba lutea*.

In English, besides its name *Diers-weed*, it is called *Wold* and *Would*; these names sound like *wood*, and the two plants, though in themselves perfectly distinct, have from this been confounded one with another by the husbandmen. Even many of those who have written treatises for their instruction, have thought them the same plant.

DIVISION II. FOREIGN SPECIES.

Sharp leaved Diers-weed.

Reseda foliis angustis acuminatis. *N^o 30. 15*

The root is long, slender, white, and full of fibres.

The leaves that rise first are very narrow, long, and sharp-pointed: they do not spread themselves upon the ground, but rise up in a thick tuft.

The stalk is round, firm, upright, ten inches high, and yellow.

It does not divide into branches, but sends out a number of shoots all the way up from the bottoms of the leaves; so that it appears of a pyramidal form.

The leaves are placed alternately and at con-

siderable distances: they are very long, narrow, and sharp at the point, and are of a pale green.

The flowers stand in long spikes at the top of the stalk, and of these branches; and they are very small, and of a pale yellow.

The seed-vessel is oblong and crooked; and the seeds are very numerous and small.

It is a native of the mountainous parts of Europe, and flowers in August.

Tournefort calls it *Luteola pumila pyrenaica linariae folio*.

The leaves are not of that yellowish hue that those of our *common diers-weed* get when they begin to grow dry; but are at first of a bluish green, and afterwards greyish.

Ray calls it *Luteola minima polygale folio*.

The leaves are placed irregularly on it; and they are oblong, and somewhat broad.

The flowers are very numerous, small, and of a pale yellow: they stand in a long spike at the top of the stalk.

The seed-vessel is slender and crooked, and edged with three ribs.

It is found on walls, and on barren grounds among corn. It flowers in July.

Ray calls it *Luteola minima polygale folio*.

The leaves are not of that yellowish hue that those of our *common diers-weed* get when they begin to grow dry; but are at first of a bluish green, and afterwards greyish.

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Ray calls it *Luteola minima polygale folio*.

GENUS

G E N U S IV.

BASE ROCKET.

RESEDA.

THE flower is composed of five irregular petals, unequal in size, and unevenly disposed; but they do not differ in bigness so much as those of *luteola*; and they are all divided into three parts at the edge: the seed-vessel is short and angulated, and is open at the end: the cup is small, divided into five parts, with an appendage to one of them: so that there appear to be six; and it remains when the flower is fallen.

Linnaeus, as already observed, places this among the *polyandria trigynia*; joining it with *luteola*, from which it differs in the structure of the flower, and other essential and obvious characters.

DIVISION I. BRITISH SPECIES.

Common Base Rocket.

Reseda vulgaris. *N^o 30. 16*

The root is long, slender, white, and furnished with many fibres.

The first leaves rise in a cluster; and they are very beautiful in themselves, and disposed with great regularity: they are divided in the pinnated manner, and each is formed of three pinnæ, or deep segments, with an odd one at the end: these are of a pale green, long, and narrow.

The stalks are numerous, round, firm, upright, and two feet high.

The leaves on these resemble those from the root, but are narrower and smaller.

The flowers stand in long spikes at the tops of the stalks; and they are small and whitish.

The seed-vessel is large, angulated, and open; and the seeds are very numerous, and minute.

DIVISION II. FOREIGN SPECIES.

1. Great Base Rocket.

Reseda major. *N^o 30. 17*

The root is long, thick, and furnished with many fibres.

The leaves that rise first are very large, of a deep green, and beautifully pinnated: each consists of about five pairs of pinnæ, and an odd one at the end; and these are all long, narrow, and sharp-pointed.

The stalk rises in the midst, and is round, firm, upright, and a yard high: it is thick set with leaves, and sends out a number of long branches.

The leaves on these resemble those from the root, and are of a faint green.

The flowers stand in long, thick spikes at the tops of the branches; and they are large and yellow.

The seed-vessel is thick, crooked, and hangs downward.

The seeds are small, very numerous, and brown.

It is frequent in the south of France, and flowers in August.

C. Bauhine calls it *Reseda maxima*. Others, *Reseda major*.

N^o 21.

2. Base Rocket, called Phyteuma.

Reseda calycibus maximis. *N^o 30. 18*

The root is long, thick, white, and furnished with many fibres.

The first leaves are long and narrow: they lie spread upon the ground, in the manner of those of the common diers-weed; and the plant in this state has vastly its appearance.

The stalks rise in the centre of this tuft, and are round, slender, and rarely at all branched.

The leaves stand irregularly on them, and are very oddly varied in figure: some of them perfectly resemble those from the root; but others are divided at their ends into three or five parts, in the manner of fingers.

The flowers are small, but they stand in very large cups.

They are disposed in a loose spike at the tops of the stalks, and in the bosoms of the upper leaves.

The seed-vessel is large, and stands surrounded by this great cup: the seeds are very minute.

It is common in the south of France, and flowers in July.

C. Bauhine calls it *Reseda affinis phyteuma*. Columna, *Erucago apula trifida et quinquefolia*.

H h h

3. Base

3. Bafe Rocket, called little Spanifh Catchfly.

Refeda alba minima foliis integris. M. 30. 19

The root is long, flender, white and divided.

The leaves that grow from it are numerous, oblong, narrow, and sharp-pointed.

The stalks rife in the centre of this clufter; and they are flender, upright, five or fix inches high, and fcarce at all branched.

Their leaves are fmall, and like thofe from the root: they are placed irregularly, and are of a pale green.

The flowers are very fmall, and white: they

ftand at the tops of the stalks in long, flender fpiques.

The feed-velfel is fmall, and the feeds are very minute.

It is common on hilly, barren places in the warmer parts of Europe; and flowers in July.

C. Bauhine calls it *Refeda alba minor*. Clufius, *Sefamoides falamanticum parvum fecundum*. Our common Englifh writers, *Little Spanifh catchfly*.

These feveral fpecies are faid to be good in fomentations, and other compofitions for external ufe; but their virtues are not fupported upon experience.

S E R I E S II.

Plants with a five-leaved flower, and fingle capfule for the feeds, of which there is no fpecies native of Britain.

G E N U S I.

CUCUBALUS.

THE flower is compofed of five petals, which are divided at the ends: the feed-velfel is of a roundifh figure, pointed at the top, and has the appearance of a berry: the cup is round, fwoln, and nipp'd at the edge; and it remains when the flower is fallen.

Linnaeus places this among the *decandria trigynia*; the threads in each flower being ten, and the ftyles from the rudiment of the capfule three.

This author joins in the fame genus, and under the fame name, many proper fpecies of *lychnis*: thefe have been defcribed in their place.

The occafion is, that he has not obferved the effential and diftinctive character of the genus, which is, that the capfule has the appearance of a berry. This the right *cucubalus* has, but not any one of all thofe of the *lychnis* kind: thus properly determined, there is but one known fpecies of this genus: this has been at all times called by authors by that name; and the name has not been given, till by this writer, to any other.

Berry-bearing Chickweed.

Cucubalus. M. 31. 1

The root is compofed of feveral thick, crooked fibres.

The stalks are numerous, weak, and flender: they fupport themfelves among bufhes, and will that way grow to a very confiderable height.

The leaves are large: they ftand in pairs without footstalks, and are oblong, broadest in the middle, pointed at the end, not at all indented; of a tender fubftance, and of a pale green colour.

The flowers grow at the tops of the stalks, and of branches rifing from the bofoms of the upper leaves: they are fmall, and of a greenifh white,

they ftand in great fwoln cups, fomewhat refembling thofe of the winter cherry, and only the top of the flower is feen out of them.

The feed-velfel is round, but pointed at the end: it is of the bignefs of a large pea, and, when ripe, of a black colour; fo that it has greatly the appearance of a berry.

The feeds are numerous, fmall, and black.

It is common in woods and thickets in all the northern parts of Europe; and flowers in July.

C. Bauhine calls it *Alfine fcandens baccifera*. Dodonæus *Alfine repens*. The common writers, *Berry-bearing chickweed*; a very improper name, but which we retain here, becaufe vulgarly known. It is better to call it *Cucubalus*.

G E N U S II.

MITELLA.

THE flower is compofed of five petals, regularly expanded, with narrow bafes, which are inferted into the cup: the feed-velfel is globular, but pointed at the end: the cup is compofed of a fingle piece, and is hollow, and divided into five fegments at the edge.

Linnaeus places this among the *decandria digynia*; the threads in the centre of the flower being ten, and the ftyles from the rudiment of the capfule two.

Two-leaved Mitella.

Mitella caule diphylo. M. 31. 2

The root is long, thick, and brown: it runs under the furface, and has many large fibres.

The leaves which rife immediately from it are large, and fupported on long footstalks: they are broad, of a dufky green, and a little hairy; finuated, and fharply indented at the edges.

The ftalk is flender, upright, and not at all branched: it is two feet high, and of a pale brown colour.

There are two leaves on it, and they ftand near its middle, oppofite to one another, and without footstalks: they are narrower in proportion to

their length than thofe from the root, and fharp-pointed: but they are, in the fame manner, finuated, and notched at the edges.

The flowers are placed in a long, flender fpike at the top of the ftalk, and are very fmall, and as it were fringed.

The feed-velfel is fmall, and the feeds are round and black.

It is a native of South America, and flowers in June.

Mentzelius calls it *Cortufa Americana floribus minutim fimbriatis*. Others of the later writers, *Mitella fcapo diphylo*.

Its virtues are unknown.

G E N U S III.

CALTROP.

TRIBULUS.

THE flower is compofed of five regular petals evenly difpofed: the feed-velfel is angulated and prickly, and contains numerous feeds: the cup is formed of a fingle piece, divided into five fegments. Linnaeus places this among the *decandria monogynia*; the threads in the centre of each flower being ten, and the ftyles from the rudiment of the fruit fingle.

1. Common Caltrop.

Tribulus vulgaris. M. 31. 3

The root is fmall, long, white, divided, and furnifhed with many fibres.

The firft leaves are numerous and pinnated, and very much refemble thofe of the common wild vetch: each is compofed of feveral pairs of fmall leaves, on a middle rib; and thefe are oblong, of a frefh green, and fharp pointed.

The stalks are numerous, weak, flender, branched, and feven or eight inches high.

The leaves on them are the fame in form and ftructure with thofe from the root, but fmall: they ftand alternately on the lower part of the ftalk, but frequently are placed in pairs toward the top.

The flowers ftand on fhort footstalks rifing from the bofoms of the leaves, and they are fmall and yellow.

The feed-velfel is fhort, angulated, and very prickly; and there are fome prickles alfo round the upper part of the ftalk which fupports it.

It is frequent in the northern parts of Europe, and flowers in June.

C. Bauhine calls it *Tribulus terreftis ciceris folio fructu aculeato*. Others, *Tribulus terreftis*.

The fingular form of this herb, which refembles the vetch kind, has led all the common writers on plants to place it among that clafs, though the flower and fruit be altogether different. It is not a wonder they who judged only

by the general face were deceived in this, for it has all the afpect of the pulle kind.

2. Great flowered Caltrop.

Tribulus flore magno. M. 31. 4

The root is compofed of numerous fibres.

The firft leaves are long, large, and beautifully pinnated; each is compofed of eight pair of pinnae, fet on a double rib, with no leaf, but a fmall tendril at the end.

The stalks are numerous, round, upright, not much branched, and of a pale green.

The leaves on them are placed at diftances, and refemble thofe from the root.

The flowers ftand fingly on long footstalks rifing from the bofoms of the leaves, and they are very large and beautiful: they are of a bright yellow, and are as big as fmall poppies.

The feed-velfel is fmall and prickly: the feeds are numerous, fmall, and fhining.

It is a native of the warmer parts of America, and flowers in July.

Van Royen calls it *Tribulus foliis otoparium conjugatis*.

The common caltrop is faid to be cooling and aftringent; but thofe virtues are not warranted by any known experience. There is another plant called by the old writers *tribulus aquaticus*, and the *water caltrop*; but this is of a different clafs, and is therefore properly diftinguifhed by Linnaeus by a different generical name, *trapa*.

GENUS IV.

WILD RUE.

HARMALA.

THE flower is composed of five petals, regularly expanded: the seed-vessel is roundish, but slightly trigonal, and the seeds are numerous and oval: the cup is composed of five little leaves, and remains after the flower is fallen.

Linnaeus places it among the *polyandria monogynia*; the threads in the centre of the flower being numerous, and fixed to the receptacle, and the style from the rudiment of the fruit single. This author, instead of its most received name *harmala*, calls this genus *peganum*.

1. Common Wild Rue.

Harmala vulgaris. *MS. 5*

The root is long, thick, and furnished with many fibres.

The first leaves are large, broad, and divided into numerous, fine, narrow segments: they are of a pale green colour, and of a strong smell.

The stalks rise in the midst, and are firm, upright, very little branched, and a foot and a half high.

The leaves on these stand irregularly, and resemble those from the root in shape.

The flowers are large and white: they stand singly on long footstalks, rising from the bosoms of the leaves.

The seed-vessel is large, and the seeds are numerous and small.

It is a native of the East, and flowers in July.

C. Bauhine calls it *Ruta sylvestris flore albo magno*. Others, *Ruta sylvestris tenuifolia*, and *Harmala*.

2. Wild Rue, with undivided leaves.

Harmala foliis integris.

The root is long, slender, and furnished with many fibres.

The first leaves are oblong, narrow, of a pale green, pointed at the ends, and not at all serrated.

The stalks are numerous, slender, upright, and of a pale green.

The leaves stand irregularly on them, and are oblong, narrow, and sharp-pointed: they resemble those of the common milkwort.

The flowers stand on slender footstalks rising from the bosoms of the leaves, and they are white or yellowish.

The seed-vessel is large, and the seeds are very numerous.

It is a native of Siberia, and flowers in August.

Amman calls it *Harmala montana polygala foliis*.

GENUS V.

MARSH CISTUS.

LEDUM.

THE flower is composed of five petals regularly disposed: the seed-vessel is of a roundish figure; it contains five cells, and splits in five places at the base when ripe: the cup is small, and is formed of a single leaf, divided into five segments at the edge.

Linnaeus places this among the *decandria monogynia*; the threads in each flower being ten, and the style from the rudiment of the fruit single.

1. Narrow-leaved Marsh Cistus.

Ledum foliis angustis ferrugineis. *MS. 6*

The root is long, thick, divided, and spreading.

The stem is hard, woody, and covered with a grey bark.

The young shoots are long, slender, purplish, and covered with a white hoary matter: they are thick set with leaves, and these are long and narrow, resembling those of rosemary: their sides

are usually curled up together, and they are covered with a ferruginous dust.

The flowers stand at the top of the branches in little tufts, and they are large and white.

The seed-vessel is small, and the seeds are numerous and brown.

It is frequent in boggy grounds in many parts of North America.

C. Bauhine calls it *Cistus ledon rosmarini foliis ferrugineis*. Comararius and others, *Rosmarinum sylvestre*.

GENUS

GENUS VI.

GITH.

NIGELLA.

THE flower consists of five petals regularly disposed; and has within it eight glands, that make a very singular and beautiful appearance: they are circularly disposed, and are short, and of a labiated form; the upper lip being broadest, and is spotted; the lower narrower, and plain. The seed-vessel is large, round, and swelled in the manner of a bladder, and contains five cells, so distinct that it may perhaps be more properly said to consist of five separate capsules joined together. The seeds are numerous, and there is no cup.

Linnaeus places this among the *polyandria polygynia*; the threads in the centre of the flower being numerous, and fixed to the receptacle, and the styles from the rudiment of the fruit also numerous.

This genus seems to connect together the plants with many capsules to a flower, and those with one. There are several species of it; and in some the division of the whole is less, and in others more distinct: in some it is a single membranous seed-vessel, divided only into several cells, in the manner of many of the preceding; and in others it is more and more plainly composed of several separate capsules, which, though firmly connected together, yet are in a manner each perfect and entire.

1. Single blue Nigella. *MS. 7*

Nigella flore simplici caeruleo involucri folio cincto.

The root is long, slender, divided, and furnished with many fibres.

The first leaves grow in a cluster, and part lie upon the ground, part stand erect: they are large, and finely divided into numerous segments, which are extremely narrow, and of a dead green.

The stalks are numerous, round, firm, upright, and a foot high.

The leaves stand alternately on these, and perfectly resemble those from the root, being divided into the same narrow and numerous segments.

The flower is large, and blue, sometimes near white, sometimes of a fine, clear, and strong blue, and sometimes variously shaded between these two colours.

One flower stands usually at the top of each stalk, and at the tops of the branches.

The seed-vessel is large and roundish, and contains numerous black, rough seeds, in five distinct cells.

There stand a number of small leaves by way of cup round the flower, for it has no proper cup of its own, and these afterwards gather up round the seed-vessels, and make in either state a beautiful appearance.

It is a native of Italy, and other of the warmer parts of Europe: they have it in their corn-fields and vineyards, and it flowers in July.

C. Bauhine calls it *Nigella angustifolia flore magno simplici caeruleo*. Others, after Mathiolus, *Melanthium sylvestre*.

This species by culture affords the beautiful double kind, which is called the *damaſc nigella*, and by our gardeners the *devil in the bush*.

2. Single white Nigella. *MS. 9*

Nigella flore simplici albo nudo.

The root is long and slender, and has a few fibres.

The first leaves are large, divided into a multitude of small, narrow segments, and of a deep green.

Nº XXII.

The stalk is round, firm, upright, and very much branched: it is a foot or more in height, and of a pale green.

The leaves are placed irregularly on it, and in all respects resemble those from the root.

The flowers are moderately large and white: they stand singly at the tops of the branches, and have not that cluster of leaves under them which is seen in the blue kind.

The seed-vessel is large and oblong, and contains five cells, very plainly distinguished on the outside.

The seeds are large and black.

It is a native of the East, and flowers in August.

C. Bauhine calls it *Nigella flore minore simplici candido*.

This by culture affords also double flowers; but they are not so large, or nearly so beautiful as the others.

3. Spanish Nigella.

Nigella flore maximo caeruleo. *MS. 31. 10*

The root is long, slender, and furnished with numerous fibres.

The first leaves are very large, and of a deep green; and they are divided into numerous, long, and narrow segments.

The stalk is round, upright, branched, and a foot and a half high.

The leaves stand irregularly on it; and they are of a deep green, and divided in the same manner as those from the root, but into broader segments.

The flowers stand at the tops of the branches singly; and they are very large, and of a beautiful blue.

The seed-vessel is large, rounded, and formed into five parts, containing in five cells a great quantity of rough seed.

It is a native of Spain, and of other the warmer parts of Europe, and flowers in August.

C. Bauhine calls it *Nigella latifolia flore majore simplici caeruleo*. Others, *Nigella Hispanica maxima*; and some only *Nigella Hispanica*.

Iii

4. Bogad-

4. Broad-leaved white Nigella.

Nigella latifolia flore albo. *Pl. 34. 11*

The root is long, slender, and hung with many fibres.

The first leaves are large, and have long footstalks: they are divided into three principal parts, and those are again notched and subdivided; and they are of a dusky green.

The stalks are round, weak, and white: they stand but imperfectly upright, and are very much branched.

The leaves on these are oblong, and divided into broad, notched segments, in a pinnated manner.

The flowers stand singly at the extremities of the branches, and are large and white: they have nothing of that cluster of leaves under them, which distinguishes some of the others.

The seed vessel is oblong, large, and full of rough seed in five cells.

It is frequent in the Greek islands, and flowers in August.

Alpinus calls it *Nigella alba flore simplici*. Pona, *Nigella alba Cretica odorata*, the flowers and seeds having a fragrant smell.

These species all possess the same virtues, but the first described has them in the greatest degree. The seeds are to be preferred to any other part: they are deobstruent and diuretic, good in all obstructions of the viscera, and against the gravel.

Some have recommended this seed as a specific against agues; but the bark has superseded all other medicines for that use.

The root externally applied, stops bleeding. It is a custom in the East to chew it, and put it up the nose in hæmorrhages from that part.

It is singular, that the flowers of the blue *nigella* afford a green colour: If they are bruised and rubbed on linen, they stain it to a fresh green, which holds through many washings. It would be therefore worth considering, whether they might not be useful in dying; for the plant is easily cultivated, and the flowers are numerous. It would grow on any indifferent light land.

G E N U S VII.

B A L S A M.

B A L S A M I N A.

THE flower is composed of five irregularly-disposed petals, and has a spur behind: the seed-vessel is of a roundish form, and the cup is composed of two leaves.

Linnaeus places this among the *syngenesia polygamia monogamia*, making it the same genus with the *impatiens*: but these plants, as I have shewn already, differ as genera, not as species of the same genus. The form of the seed-vessel alone were sufficient to establish the distinction; but there are others obvious enough, and as essential.

Common Balsam.

Balsamina foliis lanceolatis. *Pl. 31. 12*

The root is large, thick, and spreading.

The stalks are thick, fleshy, and very much branched: they are of a tender substance, and of a pale green.

The leaves stand irregularly on them; and they are long, narrow, and sharp-pointed, and elegantly serrated at the edges: their colour is a fresh green.

The flowers are large and beautiful: they grow singly on short footstalks rising from the bosoms of the leaves, and they have a short spur behind:

their colour is naturally a bright red, but they change continually into white and variegated: the same plant will frequently afford them at the same time many different colours and variegations.

The seed-vessel is roundish, and rough; and, when ripe, it bursts open with violence, and scatters the seed.

It is a native of the East, but it stands the summer perfectly well in our gardens. It flowers in July.

C. Bauhine calls it *Balsamina samina*. Others only, *Balsamina*. Our gardeners know it by the name of *Balsam*.

G E N U S VIII.

P U R S L A I N.

P O R T U L A C A.

THE flower is composed of five equal petals regularly disposed: the seed-vessel is of an oval figure, and covered; splitting in the middle when ripe, and containing numerous seeds: the cup is very small, and divided into two parts, and it remains when the flower is fallen.

Linnaeus places this among the *polyandria monogynia*; the threads in the centre of the flower being numerous, and fixed to the receptacle, and the style from the rudiment of the capsule single.

1. Common

1. Common Purslain.

Portulaca vulgaris. *Pl. 34. 13*

The root is long, thick, and hung with many fibres.

The stalks are numerous, thick, weak, and very much branched: they are of a foot or more in length, and they spread themselves upon the ground: they are of a fresh green colour, and of a thick, fleshy, tender substance: sometimes they are red toward the bottoms, but that more when cultivated than when in the wild state.

The leaves are numerous, oblong, and rounded at the ends: they are very thick and fleshy, of a pale green, sometimes redish, and of a tender substance.

The flowers are small and inconsiderable: they are of a faint greenish yellow, and stand close in the bosoms of the leaves.

The seed-vessel is small, and of an oval figure, and the seeds are numerous and minute.

It is a native of the warmer parts of Europe, and flowers in July.

C. Bauhine calls it *Portulaca angustifolia sylvestris*.

When it is brought into gardens, and enlarged by culture, the leaves grow thicker and broader. In this state it has been described by many as if a distinct species: they have called it *Portulaca latifolia sativa*, Broad-leaved garden purslain, in opposition to this, which they call the narrow-leaved

wild purslain; but there is no more difference than is merely the effect of culture.

It is raised for the table, and is cooling, and good against the scurvy.

2. Hairy Purslain.

Portulaca pilosa. *Pl. 34. 14*

The root is long, slender, and furnished with many fibres.

The stalks are numerous and thick: they lie in part upon the ground, and are in part tolerably upright.

The leaves are oblong, narrow, and sharp-pointed: they stand alternately at considerable distances, and they have a tuft of hairy matter in their bosoms.

The flowers are very small, and of a faint red: they stand in the bosoms of the leaves, and particularly at the tops of the stalks and branches, where there is a kind of spreading head, formed by a large tuft of leaves, with a great deal of hairy matter at their base.

The stalk is lightly hairy, and the leaves are of a light shining green.

It is a native of South America, and flowers in July.

Herman calls it *Portulaca lanuginosa phyllis folio erectior, et elatior flore dilute rubente*. Others call it *Portulaca orientalis hirsutifolia*.

G E N U S IX.

C O R C H O R U S.

THE flower is composed of five petals regularly disposed: the seed-vessel is very large, and is formed of five valves, and contains five cells: the cup is formed of five small leaves, and falls with the flower.

Linnaeus places this among the *polyandria monogynia*; the threads in the centre of the flower being numerous, and rising from the receptacle, and the style from the rudiment of the fruit single.

1. Long-fruited Corchorus. *Pl. 31. 15**Corchorus foliis crenatis barbatis fructu longo.*

The root is long, slender, and full of fibres.

The stalk is striated, round, upright, a foot and a half high, and divided into many branches.

The leaves stand irregularly on it, and they are large, of an oval form, but pointed, and of a pale green.

They are sharply serrated all the way at the edges, and the two points of the serratures on each side nearest the footstalk, run out into each a long, slender, hooked filament of a purplish colour; this gives them the name of barbed leaves.

The flowers rise from the bosoms of the leaves: they are supported on short footstalks, and are of a pale yellow.

The seed-vessel is very long and slender: it is pointed at the end, and contains numerous seeds.

It is a native of Ægypt and America, and flowers in July.

C. Bauhine calls it *Corchorus Plinii*. Others, *Alcea elitaria, sive corchorus Americana*.

2. Short-fruited Corchorus. *Pl. 31. 16**Corchorus fructu brevi foliis oblongis barbatis;*

The root is large, and divided.

The stem is hard, woody, branched, and covered with a yellowish bark.

The leaves are placed irregularly; and they are long, broad toward the base, and continued to a narrow point: they are serrated all the way at the edges, and the two lower serratures, as in the former, are continued into slender, hooked, or curled filaments.

The flowers stand in the bosoms of the leaves, and are small, and of a whitish yellow.

The seed-vessel is large, short, and marked on the outside with five cuts, and in the same manner divided into five parts within: the seeds are numerous and large.

It is a native of the East, and of America, and flowers in August.

Plukenet calls it *Corchorus Americanus prælongis foliis capsula striata subrotunda brevi*.

The use of these plants is for the table, not for medicine.

G E N U S X.

HOLLOWLEAF.

SARACENA.

THE flower consists of five petals, which are of an oval figure, and bend inwards: the seed-vessel is roundish, and divided into five cells: the flower has two cups; the lower cup is composed of three small oval leaves; the upper one is composed of five very large and coloured leaves, and both fall with the flower: the leaves are hollow, and have a kind of lip surrounding or rising over the opening.

The flower of this genus is not less singular than the leaf. We owe the right explanation of its structure to Linneus, for others have confounded the upper cup with the petals.

That author places it among the *polyandria monogynia*; the threads in the flower being numerous, and rising from the receptacle, and the style from the rudiment of the fruit single.

1. Short-leaved purple Saracena.

Saracena foliis gibbis brevioribus *Michx.*

The root is composed of numerous thick fibres.

The leaves that rise from it are large, and of a very strange and singular figure: they are oblong, hollow, and swelled; narrow at the base, broader and gibbous upward, and toward the top they again grow smaller by way of neck: from this part the edge is carried out into a great lip or ear surrounding the opening, which is very broad.

The whole leaf is of a dusky green colour, of a very tough and firm substance, and marked with a number of thick, irregular veins.

The stalk rises up in the midst of the tuft of leaves, and is slender, perfectly upright, and naked.

It supports on its top a single flower, which is very large and beautiful: its shape resembles that of the globe-flower, and its colour is a faint purple.

The seed-vessel is large, and the seeds are numerous, roundish, but terminating in a point, and small.

It is a native of America, and grows in wet places. It flowers in July.

Authors have called it by a variety of names.

The first knowledge of the plant was from Clusius, but that was very imperfect. He never saw more than a single leaf of it, and the figure of a tuft of these with the rudiments of a stalk, but without any thing relating to the flower.

This he received from an apothecary of Paris, who had it from Lisbon, but knew nothing more of it: probably it had been brought thither from the Brazils.

This Clusius published; and he guessed the plant to be a species of *limonium*, or of some genus allied to it. From Clusius, the figure, description, and name of *limonio congener* got to the common English writers, who called it also *hollow-leaved sea-lavender*, and the *strange hollow-leaved plant*.

Since this time many of the curious have met with it, and the flower is become known, which we find is not at all less singular than the leaves: but when the entire plant was seen, there was a great deal of perplexity where to put it, and by what name to call it.

Morison calls it *Coilophyllum Virginianum brevioris folio et flore*. Plukenet, *Bucanophyllum Americanum Limonio congener ditum*. C. Bauhine named it at random, *Limonium peregrinum foliis forma floris Aristolochias*.

2. Long-leaved yellow Saracena.

Saracena foliis longioribus angustis *Michx.*

The root is composed of thick, long, and black fibres.

The leaves rise in a tuft, and stand tolerably erect: they are hollow in the manner of the others, but they are very long, slender, and regularly shaped: they are smallest at the base, and thence go up gradually encreasing to the top; so that they perfectly represent a long, slender cone inverted: at the top they are open, and there rises there a roundish, pointed lip, from a small neck: they are of a firm substance, and deep green, and they have large ribs running lengthwise. The round part at the top has also some large veins, which spread from a principal one in the middle.

The stalk rises in the centre of this cluster, and is naked, slender, upright, and of a purplish colour at the bottom, and a pale yellowish green toward the top.

The flower is very large and yellow: one stands at the top of the stalk, and no more; its form is the same with that of the preceding.

The seed-vessel is round and large, and the seeds are very numerous, and of a dark brown.

It is a native of America, and, like the former, lives in wet places. It flowers in July.

C. Bauhine calls this *Thuris limpidi folium*, and it stands under the same name in Lobel and others. Plukenet calls it *Bucanophyllum elatius Virginianum, sive Limonio congeneris altera species foliis triplo longioribus*. Morison, *Coilophyllum Virginianum longiore folio erecto, flore luteo*.

The natives have an opinion of the leaves of these plants as a sovereign remedy against venomous bites: they boil them in water, and, when they are tender, lay them upon the part; but this has no certain authority as to its success. When we became first acquainted with that part of the world, there was an opinion that the natives understood the virtues of their plants in a particular manner, and great pains were taken to obtain the knowledge from them: but the farther enquiry was made, the less dependance it was found could be placed upon their accounts. They had among them people who had the art of imposing upon the rest, and this skill in herbs was one of the great articles of their pretended knowledge; but it was usually very little.

The END of the ELEVENTH CLASS.

THE

THE

BRITISH HERBAL.

CLASS XII.

Plants whose flower is composed of SIX PETALS, and their seeds contained in a SINGLE CAPSULE.

THE plants which compose this class are very few; yet they are so perfectly characterised by the number of petals, that they are separated by Nature from all others; and the student will find great familiarity and ease in the distinction. They are obviously known by this number of their petals; and he is not sent to look for them among a multiplicity of others, with which some have confounded them; but will find them here alone, and in their place, allotted plainly by Nature, after those which have the same kind of seed-vessel, and one petal less in the flower.

Plainly as these genera are characterised by Nature, and evidently as she dictates where they should stand, Linneus has dispersed them in his works, and placed them among those to which they are not in the least allied.

We have but two genera of this class natives of Britain, and these he has separated from one another by five intermediate classes, placing the *Salicaria* among his *dodecandria*, and the *portula* among his *hexandria*.

SERIES I.

Natives of BRITAIN.

Those of which one or more species are found naturally wild in this country.

GENUS I.

SPIKED WILLOWHERB.

SALICARIA.

THE flower consists of six petals regularly disposed: the seed-vessel is single, oblong, and pointed, and the seeds are numerous and small: the cup is formed of a single piece: it is hollow and striated, and is divided into ten segments at the edge, which are alternately longer and shorter.

Linneus places this among the *dodecandria monogynia*; the threads in the centre of the flower being twelve, and the style from the rudiment of the fruit single. He takes away its received name *salicaria*, and calls it *lythrum*.

Nº 222

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DIVI-

DIVISION I. BRITISH SPECIES.

1. Common-spiked Willowherb.

Salicaria foliis oppositis. No. 2. 1

The root is long, thick, and furnished with many fibres.

The stalks are numerous, firm, large, upright, and five feet high: they are not much branched; they are of an angulated figure, and of a brown colour toward the bottom, and green near the top.

The leaves stand in pairs: they are large, and have no footstalk: they are broadest at the base, and narrower all the way to the end; not at all notched at the edges, and of a fresh green.

The flowers are large, and of a beautiful purple: they grow in long, thick spikes at the tops of the stalks, and of many shoots that rise from the bottoms of the upper leaves.

The seed-vessel is large, and the seeds are very numerous and small.

It is common by waters, and makes a very elegant figure in autumn when in flower. Many of the American plants we nurse up for their beauty, are not equal to this weed, nor so worthy a place in gardens.

C. Bauhine calls it *Lyfimachia spicata purpurea forte Plum.* Clusius, *Lyfimachia purpurea communis major.* Others simply, *Lyfimachia purpurea.*

The root of this plant is a good astringent; it

does not act with violence; but, being continued in small doses, seldom fails to answer its effect in stopping purgings or hæmorrhages.

The juice is said to be good against inflammations of the eyes; and some have recommended the distilled water for the same purpose.

2. Small-spiked Willowherb.

Salicaria foliis alternis. No. 2. 2

The root is long, thick, and furnished with large fibres.

The stalk is round, upright, firm, branched, and a foot high.

The leaves are placed irregularly, and have no footstalks: they are oblong, narrow, sharp-pointed, and of a deep green.

The flowers are small, and of a bluish purple: they do not stand in long, thick spikes at the tops of the stalks, but are placed in the bosoms of the upper leaves.

The seed-vessel is small, and the seeds are numerous and minute.

It is found in many parts of England, where there have flood waters in winter. It flowers in June.

Ray calls it *Salicaria hyssopifolia.* C. Bauhine, *Hyssopifolia.* Our people, *Small hedge-hyssop*: but this is a very improper name, as it confounds it with a genus to which it is not at all allied.

DIVISION II. FOREIGN SPECIES.

Narrow-leaved spiked Willowherb. No. 2. 3

Salicaria foliis angustioribus flore rubente.

The root is long, thick, and furnished with large fibres.

The stalk is square, firm, upright, and a foot high.

The leaves are narrow, oblong, and pointed: they have no footstalks, and they are not at all serrated on the edges.

They are very irregularly and uncertainly placed on the stalk: those toward the bottom are in pairs, or sometimes three grow at a joint; those on the upper part stand alternately.

The flowers are large, and of a bright beautiful red: they do not form a long, compact spike, as those of the common kind, but stand in the bosoms of the upper leaves in the manner of those of the last described species.

The seed-vessels are large and pointed, the seeds minute and brown.

It is frequent on the shores of the Danube, and elsewhere in Europe in the like damp places. It flowers in July.

Clusius calls it *Lyfimachia purpurea minor.* C. Bauhine, *Lyfimachia rubra non filiquosa.* Others, the *lesser-spiked willowherb*, *Lyfimachia spicata minor.*

GENUS II.

WATER PURSLAIN.

PORTULA.

THE flower is composed of six very small petals, regularly disposed, and inserted near the edge of the cup: the seed-vessel is heart-fashioned, divided into two partitions, and full of minute seeds: the cup is large, bell-fashioned, and divided at the extremity into twelve segments, which are alternately larger and smaller.

Linnaeus places this among the *hexandria monogynia*; the threads in the centre of the flower being six, and the style from the rudiment of the fruit single.

He takes away its name *portula*, and calls it *peplis*.

Of this genus there is but one known species, and that is a native of Britain.

Water

Water Purslain.

Portula. No. 2. 4

The root is composed of a few small fibres.

The stalks are numerous, round, and weak: they are fleshy, and of a pale green, and sometimes purplish: many of them lie upon the ground, and take root at the joints: but others stand erect; and they are in general about three inches in length, and rarely at all branched.

The leaves are placed in pairs: they are oblong, broad, of an inverted oval figure, and have no footstalks: their substance is fleshy, and their colour a pale green, though, like the stalks, they are also sometimes redish.

The flowers are small and purple, and stand in the bosoms of the leaves.

The seed-vessels are also small, and the seeds very minute; but the cups are large and very conspicuous.

It is common in damp places, and flowers in May.

Authors have been much perplexed where to place this little plant, or by what name to call it.

Ray calls it *Portula*, from its having something of the aspect of *purslain*. Micheli calls it *Glaucoides palustre portulacæ folio floribus purpureis.* Læfeli, *Glaux aquatica folio subrotundo.* C. Bauhine, *Alfne minor serpyllifolia.*

The people in some parts of England give the juice of it against the gravel: it operates briskly by urine.

SERIES II.

FOREIGN GENERA.

Those of which there is no species native of this country.

GENUS I.

LIONLEAF.

LEONTOPETALON.

THE flower is composed of six oval petals, alternately larger and smaller: the seed-vessel is very large, and roundish: it is inflated, and somewhat succulent, and contains a few large seeds: the cup is very small; it is composed of six leaves; and it falls with the flower.

Linnaeus places this among the *hexandria monogynia*; the threads in the flower being six, and the style from the rudiment of the fruit single.

This author takes away its name *leontopetalon*, and calls it, by an arbitrary variation, *leontice*.

1. Broad-leaved Leontopetalon.

Leontopetalon foliis latis. No. 2. 5

The root is thick, tuberous, roundish, and of a dusky colour.

The first leaves are large, broad, and of the composite kind: each is formed of five principal parts; two pairs of these are disposed in the manner of pinnae, and the odd one is at the end: on each of the lower pinnae there are three distinct, roundish leaves; and the upper pair, and also the odd leaf at the top, have a threefold division: they are of a tawny green, whence the plant has been named, as resembling the colour of the lions hair.

The stalk rises in the midst of a cluster of these first leaves, and is firm, upright, and striated: its colour is the same tawney yellowish, but is striated with purple.

The flowers are small and yellow: they stand in great numbers on the tops of the stalk, and of the branches.

The seed-vessel is large, and the seeds are roundish, and also large.

It is a native of the East, and of the warmer parts of Europe; and flowers in August.

C. Bauhine calls it *Leontopetalon*; and most follow him, adding no distinction to the name. Tournefort calls it *Leontopetalon foliis costæ alatae adnascensibus.* Our people call it *Lionsleaf*, *Lion-leaved turnip*, and some of them the *Black turnip*, and *Lion turnip*.

2. Narrow-leaved Leontopetalon.

Leontopetalon foliis angustioribus. No. 2. 6

The root is very large, thick, tuberous, irregularly rounded, and of a dusky colour on the surface, and redish within.

The first leaves are numerous, and of a very singular form: they are pinnated, but each pair of pinnae are double; and they are so disposed that they seem to stand crosswise, and do not give the usual aspect of a pinnated leaf: they are of a deep dusky green, and are sinuated at the edges; so that they are supposed to have some resemblance to the oak leaf; but that is not very striking.

The stalks are numerous, round, striated, slender, and toward the top divided into numerous branches: they are of a yellowish colour, and streaked with red.

The flowers are large and yellow: they stand

at

at the tops of the stalks, and at the extremities of the divisions of the branches.

The seed-vessel is large, oblong, and thick; and the seeds are large and roundish.

It is a native of the East, and is there frequent in the corn-fields and other cultivated grounds. It flowers in September.

C. Bauhine calls it *Leontopetalum affinis foliis quernis*.

G E N U S II.

M E D E O L A.

THE flower is composed of six petals, which turn back: the seed-vessel is large, roundish, and divided into three cells, each of which is a single large seed: there is no cup.

Linnaeus places this among the *hexandria trigynia*; the threads in the flower being six, and the styles from the rudiment of the fruit three.

Greenish-flowered Medeola.

Medeola floribus virescentibus.

The root is large, thick, and has many fibres.

The first leaves are large, long, and undivided: they have no footstalks: they are broadest in the middle, and pointed at the end, and undivided at the edges.

The stalk is round, upright, firm, and not at all branched.

The leaves on it are, like those from the root, broadest in the middle, oblong, small at the base, pointed at the end, and of a fresh green.

They are disposed in a stellated manner on the

Tournefort, *Leontopetalon foliis castae simpliciter nascentibus*. Others, *Chrysogonum dioicoides*, and simply *Chrysogonum*.

The root of the first kind is used to take spots out of woollen cloths; and it is said to have some efficacy in medicine as a diuretick. The other is not used.

stalks, six or more at a joint, except at the top, where there grow two or three irregularly.

The flowers are small and greenish: they grow singly on slender footstalks at the top of the main stalk, and their petals all turn back: as these are green and small, some have called them a cup, and say the plant has no flower; but this is erroneous.

The seed-vessel is small, and the seeds are roundish, but dented at one end.

It is a native of Virginia, and flowers in July. Gronovius calls it *Medeola foliis stellatis lanceolatis*.

The END of the TWELFTH CLASS.



T H E

T H E

BRITISH HERBAL.

C L A S S XIII.

Plants with the flower composed of NUMEROUS PETALS, and the seeds contained in a SINGLE CAPSULE.

THIS is a class, which, like the former, comprehends but a few plants; but they are so perfectly and obviously separated by Nature from all others, that whosoever follows her steps must thus arrange them distinctly.

As we have hitherto also pursued her traces through the several dispositions of plants, which, agreeing in the mark of a single seed-vessel, have from one to six petals in each flower, here is the place where the student will expect to find those genera which, with the first grand characteristic of a single capsule, have more than six petals.

So plain, so easy, and so familiar, is the science of botany, when not encumbered with intricate words, and useless distinctions.

We have, in this, as in the former class, but two genera, any species of which are natives of Britain. Yet these two Linnaeus has separated by several classes, putting the *hypopitys* among his *decandria*, and the *nymphaea* among the *polyandria*, though both agree in these obvious particulars. His method is unhappy that thus reduces him to separate plants the most palpably allied, and join them to the most unlike.

S E R I E S I.

BRITISH GENERA.

Those of which one or more species are natives of this country.

G E N U S I.

H Y P O P I T Y S.

THE flower is composed of numerous petals, which are serrated at their ends: the seed-vessel is oval, and marked with five ridges; and the seeds are numerous and light: there is no cup. Some have called the outer petals of the flower by that name; but they are; these properly constitute a part of the flower, and contain in their bases, which are hollowed for that purpose, its honeyed juice.

Linnaeus places this among the *decandria monogynia*; the threads in the flower being ten, and the style from the rudiment of the fruit single.

This author takes away its received name *hypopitys*, and calls it *monotropis*. The reader will perceive, in the description of the first plant of this genus, a reason for not ascertaining the number of petals in the plants of this, as in those of the preceding class: nature does not observe that particular here so strictly: when the petals in flowers are in a large number they are generally uncertain. In this species of *hypopitys* the flower which terminates the stalk usually has ten petals, and the others, when there are more, have only eight.

DIVISION I. BRITISH SPECIES.

Yellow Hypopitys. *N. 32. 9**Hypopitys floribus numerosis flavis.*

The root is small, and of an irregular figure. It lies deep in the ground, and a part of the stalk is buried also with it.

The part of the stalk which appears above the surface is about eight inches in height: it is thick, fleshy, tender, and of a pale yellow colour: it rises upright, and is not at all branched.

The leaves are thin and filmy, and scarce deserve that name: they stand alternately, and adhere to the stalk by a broad base, whence they diminish gradually to a point: they are also of a pale, dusty yellow colour.

The flowers grow in a thick, short spike at the top of the stalk, with many of these filmy leaves among them: they are for the most part covered by these films, and rarely come to perfection, excepting one which terminates the cluster, and is more open to the air: the top usually bends down, but, when the plant is well nourished, it will sometimes stand quite upright.

The flower is of the same yellow colour with the rest of the plant; and, when nicely examined, is found to have the ten petals disposed in two series; the five inner petals are narrower; the five outer ones broader, and protuberant on the outside at the base; within there is a hol-

low, containing the honey juice: these are the petals some have called leaves of a cup; but their use in carrying this sweet liquor shews them to be a part of the flower.

When the other flowers ripen, they consist of fewer petals, and are smaller: the number usually is eight, sometimes less than that.

The seed vessel is large, and the seeds are very small.

We have it in some large woods in England, but it is not common. Dr. Plot found it in Oxfordshire; Dr. Maningham in Suffex; and Mr. Doody in Hertfordshire. I shewed it in great plenty, in the year 1745, to the Duke of Richmond in Charlton forest, Suffex, whence we endeavoured to make it live in Goodwood gardens, but in vain; we tried it in many parts of the sheltered grounds, but it all failed: though, not improbably, some may have since risen there from the scattered seeds. We found the truth of Mr. Ray's observation, that it begins to smell sweet when it is fading, and not while in its vigour: the scent is agreeable, but very singular.

Mr. Ray erred in the placing of this plant: he has put it among those with four-leaved flowers and a single capsule.

Ray calls it *Hypopitys lutea*. Plot, *Hypopitys lutea verbasculi odore*.

DIVISION II. FOREIGN SPECIES.

Hollow-leaved Hypopitys.

Hypopitys foliis cavis. N. 32. 9

The root is small, short, thick, notched, and white.

No more than the root is buried in the ground in this species; the whole plant being above the surface, in the usual manner.

The stalks are round, slender, of a pale brown colour, and about four inches high.

The leaves are placed irregularly upon them; and they are oblong, narrow at the base, broader to the end, and hollowed in the manner of a spoon.

They are of the same brown colour with the stalk.

The flowers stand in a short spike at the top, and are not buried among the leaves that rise there, but have short footstalks that thrust them forward, and keep them clear.

They are small, and of a fainter colour than the rest of the plant.

The seed-vessel is large and ribbed; and the seeds are very minute.

It is a native of Virginia, and flowers in August.

Plukenet calls it *Orobanche Verbasculi odore*; and supposes it to be the same with the preceding; but erroneously.

Hypopitys with rounded leaves.

Hypopitys foliis subrotundis. N. 32. 10

The root consists of a few straggling, irregular fibres.

The stalk is round, slender, upright, and in a manner naked till near the top: its colour is a pale yellow, and it is never at all branched: the height is about six inches.

Toward the bottom of the stalk there stand a few very small films instead of leaves: these are placed irregularly, and at considerable distances.

A little higher up these films grow larger, and are set in pairs; and near the top they spread into small, rounded leaves, placed also in pairs.

The flowers stand at the top of the stalk in a small tuft, or short, thick spike: two of these rounded leaves are situated just under the spike, and usually there are many others among the flowers.

The flowers themselves are small and yellow: the seed-vessels also are small, oval, and striated; and the seeds are very minute.

It is common in the woods of North America, and flowers in July.

Plukenet calls it *Orobanche Virginiana radice fibrosa summo caule foliis subrotundis*. The external appearance of these plants has occasioned most authors to confound them in name with the *orobanche*, or *broomrape*, though the flowers are so perfectly different.

Hypopitys with a single drooping flower.

Hypopitys flore solitario mutante. N. 32. 11

The root is small and inconsiderable.

The stalk is thick, tender, upright, four inches high, of a pale yellowish colour, and covered with little films by way of leaves,

2

These

These are of a paler colour than the body of the stalk; and they are shorter toward the lower part of the plant, and are there placed much thicker, and closer together; and are longer, and more remote toward the top.

This species naturally produces only a single flower: it is placed, not at the extremity of the stalk, but near it; and as the whole top bends, this flower hangs downward: it is very large, and of a beautiful straw colour: it is composed of ten petals in two series, as in the others of this genus; but the inner five are small, and are sometimes wanting: this has occasioned

some who have seen it to call the flower *pentalous*; but its proper number of petals is ten, as in the rest of this genus.

The seed-vessel is large and striated: the seeds are numerous and small.

It is a native of North America, and flowers in April.

Gronovius calls it *Monstropa flore mutante*.

We have no knowledge of the virtues of these plants, nor do they seem to possess any worthy enquiry.

GENUS II.

WATER-LILLY.

NYMPHÆA.

THE flower is composed of numerous petals, regularly disposed, and fixed to the side of the germen: the seed-vessel is large and oval, with a narrow neck; it is juicy, and contains a pulpy matter, with numerous large seeds: the cup is large and coloured; it is composed of five, or in some species, only of four leaves; and it remains with the fruit after the flower is fallen.

Linnaeus places this among the *polyandria monogynia*, the threads in the flower being numerous; and fixed to the receptacle, and the style from the rudiment of the fruit single.

DIVISION I. BRITISH SPECIES.

1. White Water-lilly.

Nymphaea alba. N. 32. 12

The root is very long, large, and thick: it is brown on the outside, and white within; and has numerous large and long fibres.

The leaves are supported on single footstalks: these are round, thick, spungy, and of a great length; rising from the surface of the mud usually, to the top of the water, whereon the leaves float.

These are very large, and roundish, and of a beautiful green colour, and shining surface.

The flowers are supported, like the leaves, each on a long footstalk.

They are very large, and of a beautiful bright white; and of a light, but agreeable smell: the cup has four leaves.

The seed-vessel is large, and roundish, but drawn in at the neck, and there crowned with a dentated rim.

The seeds are large, roundish, and contained in a great quantity of pulp.

It is common in our brooks and rivers, and flowers in August. C. Bauhine calls it *Nymphaea alba major*. Others, only *Nymphaea alba*.

The root of this species is greatly recommended as cooling and astringent.

The country people give the juice of it for the fluor albus, with success. The powder of it dried is good against weaknesses in the seminal vessels.

The fresh roots, sliced and infused in red wine, are useful against overflowings of the menses.

Outwardly the leaves are cooling; and an oil is made, by some, of the flowers, which is excellent against pain.

There is an opinion of the roots and seeds

having a power to prevent venereal desires; but this is idle.

2. Yellow Water-lilly:

Nymphaea lutea. N. 32. 13

The root is very long and thick, of a smooth surface, except that the outer skin in some places cracks and chops; and of a white colour: it sends out numerous large fibres, and itself runs obliquely into the mud.

The leaves are supported each on its separate footstalk: these are very long, light, smooth, and full of a spongy pith: the leaves themselves are very large, and of an oblong figure, but approaching to round, and of a bright green colour.

The flowers are also supported singly on very long footstalks: they are large; but what appears at first sight to be the flower is, in this, as in the preceding species, the cup: this is composed of five leaves, which are very broad and yellow, and surround the petals: these are small, and they are also yellow; and they are placed in two series.

The seed-vessel is large, and of a pear-fashioned shape; and the seeds are round, large, and surrounded with a pithy matter.

It is common in large waters, where, if they be not deep, the leaves and flowers rise above the surface; though the plant will flower and ripen its seeds when many feet under water.

C. Bauhine calls it *Nymphaea lutea major*. Others, simply *Nymphaea lutea*.

There is another plant called *Yellow water-lilly* by the common writers, and distinguished by the more accurate, under the name of *Nymphaeoides*, the *Yellow water-lilly with fringed flowers*; but this, being of a different class, has been described before, in its place.

D I V I

DIVISION II. FOREIGN SPECIES.

1. The Egyptian Lotus.

Nymphaea foliis cordatis dentatis. H. 32. 15

The root is very large, thick, and of an oblong form, and covered with fibres.

The leaves are supported singly on long, slender footstalks.

They are very large, and of a heart-fashioned shape; being deeply cut at the base, where they are broadest, and thence smaller to the end: they are sharply dentated on the edges, and of a fleshy substance and bright green colour.

Their footstalks are long, as those of our common water-lilies; and they are smooth on the surface, and of a deep green.

The flowers are large and white: they are supported singly on slender footstalks, much longer than those of the leaves, and are composed of many petals, placed in numerous series, and surrounded by a cup composed of four leaves, as in the common white water-lily.

The seed-vessel is very large, round, but drawn up to a neck at the top, and full of a spongy matter, with many large seeds: the large cup remains with this, and is spread out under it, in the manner of the rays of a star.

Alpinus calls it *Lotus Aegyptia*; a name most authors have copied from him. Sir Hans Sloane, *Nymphaea Indica flore candido, folio in ambitu serrato*. Others, *Ambel*.

It is a native of Egypt, the East Indies, and the hotter parts of America, and flowers in autumn.

The root, which is of the shape and size of a large egg, is a delicacy with the people of the East, and accounted a very wholesome and delicate food: they boil it, and eat it with the liquor. It is so extremely abundant in the Nile, that it serves as a kind of universal food to the poor, who have nothing to do but go into the places where the water is shallowest, and take up in an hour or two food for many days for their families.

The END of the THIRTEENTH CLASS.



2. Great red Water-lily, called the Egyptian bean.

Nymphaea pediculis spinosis flore rubente. H. 32. 16

The root is large, thick, and hung with numerous long fibres.

The leaves are supported on long footstalks, in the manner of those of the common water-lilies, and are, like them, of a round form, and great bigness; but though they agree thus with the others in the general shape and manner of appearing, they differ in very essential particulars.

The footstalks of the leaves are full of small prickles, all pointing upwards, and the leaf itself is umbilicated; the stalk not being inserted at the edge, as in the others, but in the centre of the leaf.

The flowers are very large, and of a bright and elegant red: they are composed of several series of petals, and are supported each on a long prickly footstalk, as the leaves.

The seed-vessel is very large, and of a singular form: it seems as if it had been cut off at the top, and there are in it several cells, each of which contains one seed.

These are as large as the biggest filbert, and of a brownish red colour on the outside, but white within.

The whole fruit is of a spongy substance, and the seeds are soft.

It is a native of the East Indies, and other warm quarters of the world. It flowers in July.

Herman calls it *Nymphaea Indica faba Aegyptia dicta flore incarnato*. Others call it simply, *Faba Aegyptiaca*; and some after its Eastern name *ne-lumbo*.

We see the figure of this plant frequently in the Chinese works on porcelain, and in their Japan, and many held it to be imaginary; but later observations have shewn it to be the representation of a real plant, very common in their waters, and familiarly known to the ancients. It is what all the old writers have meant by the *faba Aegyptia*.

THE

BRITISH HERBAL.

CLASS XIV.

Plants that have the flower composed of FOUR PETALS, disposed in form of a cross, and the seed-vessel SINGLE, and of an IRREGULAR form.

WE have in the preceding classes arranged those genera which have a single capsule for the seeds; of a plain and simple structure, according to the number of petals in the flower preceding that seed-vessel; from those which have only one, by regular steps proceeding to such as have it composed of an irregular and uncertain large number.

In these classes we have treated of those genera whose seed-vessels have nothing particular in their form, nor have been used to be distinguished peculiarly by authors under any distinctive name: but there yet remain some to which we are, according to Nature, and the custom of botanists of all time, founded on natural distinctions, to give a peculiar place.

What are commonly called the *siliquose* and *siliculose* plants, are perfectly distinguished from all others, and held separate by writers; and in the same manner the papilionaceous: yet each of these classes consist of plants which have a single seed-vessel. These therefore, as also the berry-bearing plants, distinguished from all others in the same manner by the structure of their fruit, we are to treat of distinctly, each in its separate class; and between the first of these the siliquose, and the last of the former regular series, we are to introduce a small class, which naturally leads to them.

The siliquose are those which have the flower composed of four petals, disposed cross-ways, and the seed-vessel a regular pod: those of the present class have the flower in the same manner, composed of four petals so disposed, and have for their fruit a seed-vessel which is not a regular pod.

Linnaeus has dispersed these over his works; and Mr. Ray has committed an oversight, in respect of the several first genera, placing them among the plants with five-leaved flowers.

SERIES I.

Natives of BRITAIN.

Those of which one or more species are naturally wild in this country.

GENUS I.

PEARLWORT.

ALSINELLA.

THE flower is composed of four petals regularly disposed: the seed-vessel is round, membranaceous, and full of minute seeds: the cup is composed of four little leaves, and remains when the flower is fallen.

DIVISION I. BRITISH SPECIES.

1. Perennial Pearlwort. *N. 33. 1**Alfinella perennis foliis angustissimis.*

The root is composed of several long, slender fibres, rising from a little head.

The leaves rise in a thick tuft: they are very small, but their number makes them sufficiently conspicuous: they are long, and extremely narrow, and they terminate in a sharp point: their colour is a very strong green; deep, but not at all dusky.

The stalks are numerous, small, slender, and an inch and a half high: they are partly procumbent, partly raised from the ground, and very much branched: their colour is a paler green than that of the leaves, and they are jointed at small distances.

At every joint there grow two little leaves: they are shorter than those from the root, and broader.

The flowers stand in great numbers on the tops of the stalks and branches: they are very small, and of a faint greenish white; and the petals fall so very quickly after opening, that they are rarely found entire.

The seed-vessel is roundish, green, and full of very minute seeds.

It is common in garden-walks, and other places where it is not choaked by large weeds; it spreads naturally into large tufts, and flowers in May.

Dillenius calls it *Alfinella muscosa flore repens*. Ray has unhappily placed it among the plants with five-leaved flowers; but he calls it *Saxifraga graminea pusilla flore parvo tetrapetalo*. Others *Saxifraga Anglica alfinifolia*.

2. Annual Pearlwort. *N. 33. 3**Alfinella annua foliis brevioribus.*

The root is long, slender, and white.

The leaves rise from it in a small cluster, and spread themselves upon the ground in the manner of the rays of a star: they are oblong, somewhat broad, and of a dusky green.

The stalks are numerous, upright, and very much branched: they are of a pale green, and about an inch high.

The leaves on these are placed two at each joint; and they are very small, narrow, oblong, sharp-pointed, and of a faint green.

The flowers are very numerous: they stand at the tops of the stalks and branches, and on single pedicles rising from the bosoms of the leaves: they are small and white.

The seed-vessel is little and round, and is full of very minute seeds.

It is common in garden-walks, and between the stones of steps in old houses. It flowers in May.

It is known at sight from the other, by being in separate small plants, not running into great complex tufts.

Plot calls it *Saxifraga Anglica alfinifolia annua*. Plukenet, *Alfine saxifraga graminifolia flosculis tetrapetalis herbicidis & muscosis*; but the flowers

are much more distinct than those of the other, and whiter.

3. Thick-leaved Pearlwort.

Alfinella foliis crassis. N. 33. 2

The root is composed of numerous, slender, crooked, and very long fibres.

The leaves rise in a large tuft; and they are oblong, but somewhat broad, thick, fleshy, sharp-pointed, and of a bright green.

The stalks are numerous, and very much branched: they are an inch and half high, and of a pale green.

The leaves on these are also somewhat thick and fleshy; but they are short and broad, though very small.

The flowers grow at the tops of the stalks, and their petals are broad, and rounded at the end.

The seed-vessel is roundish, and full of minute yellow seeds.

This was first found in the north of England; but it is common in many other places, passing unobserved among the others, though really and certainly a distinct species. It flowers in April.

Ray calls it *Saxifraga graminea pusilla foliis brevioribus crassioribus & succulentioribus*. It was first observed in Northumberland by Mr. Lawfon.

4. Slender, upright Pearlwort.

Alfinella erecta flore majore. N. 33. 4

The root is composed of numerous small fibres.

The first leaves are numerous, oblong, and sharp-pointed: they have no footstalks, and they are of a beautiful green.

The stalk rises in the centre of these, and is round, upright, slender, and of a pale colour.

The leaves on the stalk are like those from the root, broadest at the base, and narrower to the point: they stand in pairs, and are placed at considerable distances, so that spaces of the naked glossy stalks are seen: the whole plant is not more than two or three inches high.

The flowers are large, and snow-white, and one of them stands on the top of every stalk: sometimes also there rise shoots from the bosoms of the leaves, each of which has on its top in the same manner a single flower.

The seed-vessel is roundish, and full of very small seeds.

It is frequent in dry pastures, and flowers early in spring: there is abundance of it in Hyde-park, where it makes a very pretty appearance.

Ray calls it *Alfine tetrapetalos caryophylloides quibusdam holostemum minimum*. Dillenius, *Alfinella foliis caryophyllis*. Magnol, *Alfine verna glabra*.

The virtues of these little plants are not supported upon the authority of experience, but very considerable ones are attributed to them.

They are said to be powerful diuretics, and good against the gravel and stone, taken in the form of an expressed juice, or in a strong infusion. The opinion of dissolvents of the stone is at this time over; but, while it remained in credit, and

and the several kinds of *saxifrages* were supposed to possess it, these had their share in the character.

5. Upright, branched Pearlwort.

Alfinella ramiflor erecta. N. 33. 5

The root is composed of small and slender fibres.

The stalks are numerous and slender; some of them lie upon the ground, but the greater part are erect: they are round, slender, and of a pale green.

The leaves are very narrow and oblong: they are placed two at each joint, and those joints are at distances on the stalk.

From the bosom of almost every leaf rises a shoot, which is afterwards branched out into other divisions; so that the whole plant is bushy, and about four inches high.

The flowers are small and white: they stand at the tops of all the branches, and also on single footstalks rising from the bosoms of the leaves.

The seed-vessel is large, rounded, and compressed; and the seeds are large, and not numerous.

It is common on heaths in many parts of the kingdom, and flowers in June.

Magnol calls it *Polygonum angustissimum gramineo folio erectum*. Ray, *Alfino polygonoides tenuifolia flosculis ad longitudinem caulis velut in spicam dispositis*.

6. Short, many-leaved Pearlwort.

Alfinella foliis brevibus numerosis.

The root is slender, and hung with fibres.

The stalks are numerous, slender, upright, and four inches high: they are of a pale green, and not much branched.

The leaves stand in pairs; but there are always many shoots of young ones rising from their bosoms: they are short, somewhat broad, and of a dusky green.

The flowers stand at the tops of the stalks and branches, and from the bosoms of the leaves also there rise pedicles supporting several: they are small, white, and quickly fade.

The seed-vessel small, and the seeds are numerous and minute.

We have it on wet ground in the Isle of Ely. It flowers in July.

Ray calls it *Alfinastrum gratiola folio*.

Frequently the whole plant is red.

DIVISION II. FOREIGN SPECIES.

1. Tall, long-leaved Pearlwort. *N. 33. 6**Alfinella elatior foliis longioribus angustis.*

The root is long, slender, white, and furnished with many fibres.

The stalks are numerous, very slender, not much branched, and six inches high.

The leaves are placed in pairs, and at considerable distances, on the stalk: they are long, and very narrow, of a beautiful grass-green, and sharp-pointed.

The flowers are small and white: they stand at the tops of the stalks, and of young shoots that rise from the bosoms of the leaves, and some few on long, slender footstalks, that rise immediately from the bosoms of those leaves, whence there are no other shoots.

The seed-vessel is round, and the seeds are very minute.

It is frequent on the mountains on the northern parts of Europe, and flowers in July.

C. Bauhine calls it *Alfine montana capillacea folio*; and others borrow the same name.

2. Large-flowered Pearlwort. *N. 33. 7**Alfinella foliis majoribus flore aliquantulum majore.*

The root is composed of a few filaments:

The stalks are numerous, erect, slender, and very much branched: they are of a pale green, and their joints are at small distances.

The leaves stand two at each joint, and they are small, short, and narrow.

The flowers are larger than in most of these plants, but they are not very considerable: they are white, and are placed at the tops of the branches, and on footstalks from the bosoms of the leaves.

The seed-vessel is large, and the seeds are few.

It is frequent in Germany, and flowers in April.

Columna calls it *Alfine ramosa glabra*.

GENUS III.

ALL SEED.

RADIOLA.

THE flower is composed of four petals regularly disposed: the seed-vessel is oval, and made of eight valves; it contains eight cells, and in each a single seed: the cup is formed of a single piece, divided into numerous, slender segments.

Linnaeus makes this a species of *linum* or flax, though it contradicts the whole generical character. There is but one known species of it, and that is a native of Britain.

All seed.

Allseed.

Radiola. M. 30. 0

The root is small, and furnished with many fibres.

The stalk is round, and divided into a vast multitude of branches. The whole plant is not more than an inch high.

The leaves stand in pairs, and they are of a dusky green, short, and broad.

The flowers are very small, and white; and they stand in clusters at the tops of the branches. The seed-vessels are large and brown; and the seeds minute.

It is not uncommon on heaths, and flowers in July.

Ray calls it *Radiola vulgaris serpyllifolia*. Others, *Hernaria minima*.

S E R I E S II.

FOREIGN GENERA.

Those of which there is no species native of this country.

G E N U S I.

BARRENWORT.

EPEMEDIUM.

THE flower is formed of four petals, regularly disposed: the seed-vessel is long, slender, pointed at the end, and made of two valves, containing numerous seeds in a single cell: the cup is composed of four leaves, and falls with the flower.

Linnaeus places this among the *tetrandria monogynia*; the threads in the centre of the flower being four, and the style from the rudiment of the fruit single.

Of this genus there is but one known species.

Barrenwort.

Epimedium. M. 32. 9

The root is slender and creeping, and is hung about with numerous fibres.

The first leaves stand on long, slender, and divided footstalks, and there are usually three on each division.

They are heart-fashioned, deeply cut in at the base, and thence smaller to the extremity; and are very sharply serrated round the edges.

The stalk rises among these, and is round, firm, upright, not at all branched, and a foot high.

There usually stands one of these compound leaves upon it, consisting of five single ones, each on its own separate footstalk; and these are,

like those from the root, heart-fashioned, serrated, and pointed.

The flowers stand at the top of the stalk in a kind of spike, and each has its separate, slender footstalk: they are of a deep purple, with an edge of yellow.

The seed-vessel is long and slender, and the seeds are oblong and small.

It is a native of many of the northern parts of Europe, and lives in the damp parts of forests.

It flowers in August.

All authors call it *Epimedium*; the plant being so singular that it needs no distinctive epithets.

It has been said to be a native of this kingdom, but not truly.

Its virtues are not certainly known.

G E N U S II.

PODDED CUMMIN.

HYPECOUM.

THE flower is composed of four petals of unequal size: two of these are larger, and divided each into three parts; and these stand more outwards: the other two stand inwards, and are small, and divided slightly into three parts at the top; the middle segment being hollowed, compressed and erect: the seed-vessel is long, crooked, and jointed: the cup is composed of two little leaves, and falls with the flower.

Linnaeus places this among the *tetrandria digynia*; the threads in the centre of the flower being four, and the styles from the rudiment of the fruit two.

1. Common

1. Common Podded Cummin.

Hypecoum vulgare. M. 33. 10

The root is long, thick, and furnished with many fibres.

The leaves that rise from it are large, and beautifully divided into segments: they are of the pinnated form, but each of the pinnæ of which they are composed, is again divided into smaller parts; and they are deeply notched at the edges: the whole leaf is of a pale bluish or yellowish green; and its pedicle is often redish toward the ground.

The stalk is round, ridged, upright and of a pale colour: often it is flattened. Toward the lower part it is simple, and usually naked: higher up it has several leaves; and toward the top it divides into branches.

The leaves on the stalk are like those from the root, only smaller.

The flowers are moderately large, and of a bright yellow: they stand on slender footstalks at the extremities of the branches.

The seed-vessel is long, crooked, and jointed; and in each joint there is contained a single oblong seed.

It is common in the southern parts of Europe, and flowers in July.

C. Bauhine calls it simply *Hypecoum*; and most authors follow him. Others call it *Hypecoum filiquis articulatis*.

2. Podded Cummin with smooth pods.

Hypecoum filiquis teretibus levibus. M. 33. 11

The root is long, slender, and furnished with numerous fibres.

The first leaves are long, narrow, and pinnated: each is composed of four, five, or more pairs of pinnæ on a long middle rib, with an odd one at the end; and they are all very deeply indented, some of the lower ones down to the rib: the colour of the whole leaf is a fresh and beautiful green.

The stalks are slender, round, upright, and ten inches high.

The leaves on them resemble those from the root, but that they are smaller and of a paler colour, and are more deeply indented.

The flowers stand at the tops of the stalks; and they are small and yellow.

The seed-vessel is a long pod, not jointed, as in the common *Hypecoum*, but smooth: it is frequently a little crooked, and always hangs down.

The seeds are numerous, oblong, and yellowish.

It is frequent in many parts of Europe, and flowers in July.

Dalechamp calls it *Cuminum sylvestre filiquatum*; and others have followed him.

G E N U S III.

LUDWIGIA.

THE flower is formed of four petals regularly disposed: the seed-vessel is composed of four valves: the cup is divided into four long and narrow segments, which appear between the petals of the flower, and remain when it is fallen.

Linnaeus places this among the *tetrandria monogynia*; the threads in the centre of the flower being four, and the style from the rudiment of the fruit single.

Alternate-leaved Ludwigia.

Ludwigia foliis angustis alternis. M. 33. 12

The root is composed of numerous long fibres rising from a small head.

The stalk is round, firm, upright, striated, and of a yellowish colour.

The leaves are placed alternately upon it; and they are long, narrow, and sharp-pointed; and have no footstalks.

The flowers grow toward the tops of the stalks, and of the branches rising from the bosoms of the upper leaves: they are placed singly in the

bosoms of the leaves on these parts of the plant; and are large and yellow.

The seed-vessel is square and large: it is open at the top, and it contains numerous small seeds.

It is a native of Virginia, and flowers in July.

Plukenet, calls it *Lyfimachia non papesa flore luteo majori filiqua caryophylloide Virginiana*. Gronovius calls it simply, *Ludwigia*. Van Royen, *Ludwigia capsulis subrotundis*.

Its virtues are unknown.

G E N U S IV.

OLDENLANDIA.

THE flower consists of four petals regularly disposed, and spread open: the seed-vessel is round and coriaceous, and contains numerous small seeds in two cells: the cup is divided into four narrow segments, and remains when the flower is fallen.

Linnaeus places this among the *tetrandria monogynia*; the threads in the flower being four, and the style from the rudiment of the fruit single.

N 23.

N n n

N. Broad.

1. Broad-leaved Oldenlandia.

Oldenlandia foliis latioribus. Pl. 33. 13

The root is composed of a few small fibres. The stalks are numerous, weak, slender, and in great part procumbent: they take root at the joints as they lie, and by this means spread the plant abundantly.

The leaves are placed in pairs, and have short footstalks: they are oblong, broad, and of a faint green: they are largest in the middle, pointed at the ends, and not at all notched at the edges.

The flowers grow in the bosoms of the leaves: they are placed on short footstalks, one flower on each; and they are small and white.

The seed-vessel is large, and contains a number of small, brown seeds.

It is frequent in North America in damp places. It flowers in June.

Plukenet calls it *Alfine aquatica major repens Virginiana foliis acuminatis*. Others, *Oldenlandia uniflora*, from the flowers standing singly on the footstalks in this species; they supporting more in the others.

2. Narrow-leaved Oldenlandia.

Oldenlandia angustifolia. Pl. 33. 14

The root is small, oblong, and furnished with many fibres.

The stalks are numerous, slender, round, firm, upright, and branched: they are of a brownish colour, and brittle.

The leaves are placed in pairs, and have tufts of young ones, or the rudiments of branches, in their bosoms all the way up the stalk: they are long, narrow, and sharp-pointed; and are of a dusky green.

The flowers stand at the tops of the stalks, and of shoots rising from the bosoms of the upper leaves, in clusters like little umbells; and they are small.

The seed-vessel is large, and the seeds are numerous and little.

Plukenet calls it *Lysimachia affinis saturie folio maderæ spatensis capsulis in summitate fere umbellatis*. Others, *Oldenlandia umbellata*.

Its virtues are not known:

G E N U S V.

AMMANIA.

THE flower consists of four petals regularly disposed, and inserted into the cup: the seed-vessel is round, and contains four cells: the cup is hollow, striated, and quadrangular: it is divided into eight segments at the edge, and four of these are shorter than the others, and are turned back.

Linnaeus places this among the *tetrandria monogynia*; the threads in the centre of the flower being four, and the style from the rudiment of the fruit single.

Narrow-leaved Ammania.

Ammania foliis angustis. Pl. 33. 14

The root is long, slender, divided, and furnished with numerous fibres.

The stalk is round, upright, firm, and extremely branched: it is of a redish colour, and tough; and its branches are extremely long and slender.

The leaves are placed in pairs, and they are oblong, very narrow, sharp-pointed, and without footstalks.

The flowers are placed in clusters in the bosoms

of the leaves; and they are small, and of a bright yellow: the plant when in flower makes a beautiful appearance; for it is covered at the joints from the root to the very top.

The seed-vessels are round and small; and the seeds are minute and numerous.

It is a native of the East Indies, and flowers in June.

Plukenet calls it *Anonymos linariæ folio orientalis Gallii lutei flore herba capsularis verticillata*.

Its virtues are unknown.

G E N U S VI.

WATER CALTROP.

TRAPA.

THE flower consists of four petals regularly disposed: the seed-vessel is of an oblong oval form, very hard, and contains only a single cell; and it is armed with four sharp thorns: the cup is made of a single piece divided into four narrow segments: it remains after the flower is fallen; and the segments hardening, become the thorns of the seed-vessel.

Linnaeus places this among the *tetrandria monogynia*; the threads in the centre of the flower being four, and the style from the rudiment of the fruit single.

This author has taken away its common name, *tribulus aquatica*, and calls it *trapa*: this is very proper, because another plant of a very different genus is called *tribulus terrestris*. We have retained the name *trapa*; keeping with it the English received name *water caltrop*.

Of this genus there is but one known species.

The Water Caltrop.

Trapa. Pl. 33. 15

The root is very long, slender, and hung with a multitude of fibres.

The leaves are numerous, and each is supported on a long, slender footstalk: they are broad, short, and in figure half round; being flat where they join the stalk, and rounded each way from thence: they are of a fleshy substance and of a dead green.

The footstalks are round, smooth, light, and hollow.

The flowers rise among the leaves, and are supported each on a single, naked footstalk, nearly as long as those of the leaves: they are large and white.

The seed-vessel is large, and extremely hard: it is armed with four very strong and sharp prickles, and contains only one seed. The kernel is very sweet: it has the taste of a chestnut.

It is frequent in the warmer parts of Europe, and in the East, and will live in the salt, as well as fresh, water.

All the writers call it *Tribulus aquaticus*, or *Trapa*.

The fruit is pleasant and nourishing. It is eaten in some places as a delicacy, and in others as a necessary food; being ground to a kind of flour and made into bread.

THE END of the FOURTEENTH CLASS.



THE

THE BRITISH HERBAL.

CLASS XV.

Plants whose flower is composed of FOUR PETALS regularly disposed, in form of a cross, and whose seeds are contained in a REGULAR POD, of a long and slender shape.

THE plants of this class are so essentially and obviously distinguished from all others, and so happily united among themselves, that most of the botanical writers have kept them together, and in a distinct class.

Ray calls them *herbæ tetrapetale filiquosæ*; and Tournefort, *herbæ flore polypetalo cruciformi*. Linnaeus distinguishes them by the name of *tetradynamia*; the threads in the flower being usually six, and of these, four being always longer than the rest: these four he esteems more efficacious in the fecundation of the seeds; and thence has named the class.

This author places in the same class those genera which have short, and those which have long, pods, only distinguishing them as belonging to two sections. Mr. Ray has done this before him, and so have many others: but the distinction between the several genera is so plain, and so well observed by nature, that they demand in a just method to be arranged under two distinct classes.

The very authors who place them together, always separate them by a subdivision; and they are distinguished by established titles universally received, and universally understood; those which have long pods being called *herbæ filiquosæ*, and those which have short ones, *herbæ siliculosæ*.

We are unhappy in the English language in a dearth of scientific terms: we have no names or words that distinctly convey the sense of *filiqua* and *silicula*, on which this separation is founded; we only call them long pods and little pods; but the term *silicula* is not in this case simply a diminutive; for the short pod differs in form as well as size from the other.

There is an antiquated word, *shale*, used by some authors of credit, and adopted by our dictionaries, for a husk, or covering of seeds: we shall, in this want of terms for distinction, appropriate it to the short seed-vessel, called in Latin *silicula*, and call the other only a pod.

Thus, having established words to ascertain our meaning in each article, we shall follow the steps of nature in the division of these plants, making those with pods, *filiquæ*, constitute one class; and those with *shales siliculæ*, another.

SERIES

SERIES I.

Natives of BRITAIN.

Those of which one or more species are naturally found wild in this country.

GENUS I.

WALLFLOWER.

LEUCOIUM.

THE flower is composed of four large petals: the pod is long, slender, flattened, formed of two valves, containing two cells, and terminated by a style, which is split at the top: the cup is composed of four long, narrow leaves, and falls with the flower: the seeds are oval and flattened.

Linnaeus places this, with the rest of the *filiquosæ* plants, among the *tetradynamia filiquosa*: but he abolishes its received name *leucium*, calling it *cheiranthus*.

There is one singular plant of this genus, the pod of which, instead of terminating in two, has three points. Many have of late made of this a particular genus, under the name of *gakenia*; but Linnaeus much more justly refers it to the rest, not allowing this alone a sufficient distinction for a new genus.

The botanists of late time have accounted it an honour to constitute new genera; and have therefore sought the most trivial marks for a distinction, which ought to be founded only on the greatest and most obvious.

The Arabians call the common yellow wallflower, *cheiri*; but it is wrong from that to derive the name *cheiranthus* for the whole genus.

DIVISION I. BRITISH SPECIES.

1. Common Wallflower.

Leucium luteum vulgare. *N^o 34.1*

The root is divided into a number of long, straggling parts, each furnished with numerous fibres.

The stalk is round, firm, upright, hard, and very much branched.

The leaves are long, narrow, and of a fresh green: they have no footstalks; they adhere by the base, and they are undivided at the edges.

The flowers grow in a kind of spikes at the top of the stalks and branches; and they are large, yellow, and sweet scented.

The pods are long, slender, and whitish: the seeds are flattened and small.

It is common on old walls, and in some places on rocks; and has thence, for its beauty and fragrance, been introduced into gardens; where the flower, and indeed the whole plant, grow much larger than in the wild state.

C. Bauhine calls it *Leucium luteum vulgare*; and most others follow him.

When carefully cultivated the flower gets streaks of a reddish or deep orange colour; and at other times it is rendered large and full of leaves: these are the *bloody wall* and the *double wall* of our gardeners.

It were well if we could accue none above the rank of gardeners with raising these varieties into the imaginary place of species; or if these were all so treated. We see more of them, and in considerable writers.

C. Bauhine describes, 1. one with serrated leaves; 2. one with great flowers; 3. a great,

N^o XXIV.

double; and, 4. a lesser, double wallflower: these are all varieties owing to culture; and thus of one plant are made five.

2. Sea Wallflower. *N^o 34.2*

Leucium maritimum filiquis tricuspidatis.

The root is long, slender, and furnished with a few fibres.

The stalks are numerous, weak, and branched; they stand but irregularly upright, and they are of a pale colour, and a little hairy.

The leaves stand irregularly, and are long, narrow, and deeply indented at the edges: they grow without footstalks, and are somewhat hairy, and their colour is a pale whitish green.

The flowers stand at the tops of the stalks and branches; and they are large and white.

The seed-vessels are long, somewhat thicker than in the common kind, and hairy; but what is very singular in them is, that each terminates in three points, instead of the two of the common kind.

The seeds are small, oval, and flattened.

It is found on the coasts of Wales and Cornwall; and flowers in July.

C. Bauhine calls it *Leucium maritimum sinuata folio*.

We have this in some gardens in its natural condition; and we see it in others raised to a greater size, and into varieties, called distinct species by some, from culture.

What we call stock Julyflowers are of the same genus with wallflowers, differing only as species, though the distinction be very evident.

O p p

Thyfe

These two plants are the only natives of our country; the first is the mother plant of all that variety of *walls* in our gardens; and the latter of some of the *stocks*: thus our people abbreviate the proper expressions of the kinds. The latter is plainly of the stock Julyflower, or, as it is vulgarly expressed, the *stock* kind.

Great virtues have been attributed to the *leu-*

cium; but they are at present not much regarded. The flowers are celebrated against disorders of the head and nerves, and not without some foundation in truth. A conserve of them is the best method of taking them.

The tops of the plant are said to be promoters of the menses; and the seeds have been recommended in paralytick cases. The common wild wallflower is best.

DIVISION II. FOREIGN SPECIES.

1. Square-podded Wallflower.

Leucoium siliquis quadratis. *Pl. 34. 3*

The root is long, thick, and furnished with numerous fibres.

The first leaves rise in a large tuft, and are long, narrow, of a faint green, and without footstalks.

The stalk is firm, upright, single, and scarce at all branched, and is of a pale colour, and a foot and half high.

The leaves are numerous; they are long, narrow, hollowed, and have usually a dented edge: they are sharp-pointed, undivided at the edges, and of a pale green.

The flowers are yellow and fragrant, like those of the common wallflower, but smaller.

The seed-vessels are square, and the seeds are rounded and flat.

It is frequent on barren grounds in France and Italy; and flowers early in summer.

C. Bauhine calls it *Leucoium luteum sylvestre angustifolium*. Others, *Leucoium sylvestre*. Our gardeners, the Upright wallflower.

2. Common Stock Julyflower.

Leucoium incanum vulgare. *Pl. 34. 4*

The root is large and spreading.

The stalk, or, as it may be better termed, the main stem, is round, thick, white, naked for a considerable height, and from thence upwards divided into numerous branches, and crowded with leaves. The plant grows to two feet or more in height, and has the aspect of a little shrub.

The leaves stand irregularly on it: they are numerous, long, narrow, and hoary; of a pale greyish green, soft to the touch, not at all divided at the edges, and blunt at the points.

The flowers stand in a kind of spike at the tops of the stalks, and are large and handsome: their natural colour is a deep purple, and they are sometimes white.

The seed-vessel is flattened, and as it were cut off at the top: the seeds are small and flattened.

It is a native of Spain, and thence brought into our gardens, where, in this natural state, it is called the *stock Julyflower*, or *single stock*. Culture doubles stripes, and enlarges the flowers; and in these several appearances it is described by some, too attentive to frivolous distinctions, under the names of so many distinct species.

As the common English wallflower is the origin of all the *walls* of our gardens, this Spanish kind is the source from whence industrious art has produced all the double, and otherwise varied *stocks*.

C. Bauhine calls this *Leucoium incanum foliis hortense*. Lobel, *Viola alba*.

3. Little Stock with dentated leaves;

Leucoium minus dentatis foliis. *Pl. 34. 5*

The root is composed of a few fibres.

The stalk is slender, upright, of a whitish colour, and a foot high.

The leaves are numerous, and placed irregularly: they are long, narrow, and of a greyish colour, hoary, and soft; and they are dentated at the edges.

The flowers stand at the tops of the stalks in a kind of loose spikes; and they are small, and of a pale purple.

The seed-vessels are long, rounded, and sharp at the point.

The seeds are oval and flat.

It is a native of the coast of Spain, and flowers in July.

C. Bauhine calls it *Leucoium incanum minus*.

4. Narrow-leaved sea Stock.

Leucoium maritimum foliis angustis;

The root is large and spreading.

The stalk is thick, upright, and bushy; naked toward the lower part, but upwards covered with leaves: its colour is a greyish white, and its substance firm.

The leaves stand irregularly; and they are narrow, oblong, and somewhat sinuated at the edges: they are soft to the touch, and their colour is a faint green, with a tinge of bluish, or greyish.

The flowers are large, and of a deep unpleasing purple: they stand in a kind of loose spike at the tops of the stalks, and have very short footstalks: the petals are placed regularly, but they are usually undulated at the edges.

The seed-vessels are long and large; and the seeds are large and roundish.

It is common about the coasts of Italy, and sometimes is seen far from the sea, both there and in other warmer parts of Europe.

C. Bauhine calls it *Leucoium maritimum angustifolium*. Boccone, *Leucoium minus lavendulae folio obseleto flore*. The flowers sometimes are white.

5. Small sea Stock.

Leucoium purpureum maritimum minus.

The root is long and thick, and is furnished with many fibres.

The leaves that rise first from it are in a thick tuft;

tuft: they are long, narrow, of a pale greyish green, and soft to the touch: they have no footstalks: they are sharp-pointed; and they have each one or two indentings at the edge.

The stalks rise in the centre of this tuft, and are round, weak, and divided into many branches: they are six or eight inches high, and their colour is a pale green.

The leaves stand alternately, and resemble those from the root: they are long and narrow, and have usually a single indenting.

The flowers stand at the tops, and are small, and of a pleasing colour, a faint purple.

The seed-vessels are long and knotty, or as it were jointed.

The seeds are oval and very small.

It is a native of the Spanish sea-coast, and flowers in April.

C. Bauhine calls it *Leucoium maritimum minus*. Tournefort *Leucoium vernum foliis crucæ*.

G E N U S II.

DAMES VIOLET.

HESPERIS.

THE flower is formed of four petals regularly disposed, and terminated by narrow bases: the cup is composed of four narrow-pointed leaves gaping below; two of which are large at the base, and it falls with the flower: the seed-vessel is long, slender, compressed, striated, and often crooked, or twisted, and singly pointed; and the seeds are oval and compressed.

Linnaeus places this among the *tetradynamia siliquosa*; the threads in the flower being six, four of which are longer than the others; and the seed-vessel a long pod.

The English name of this genus being much misused, it will be enough for the student to know there is such a one, and more convenient to use the Latin, *hesperis*.

DIVISION I. BRITISH SPECIES.

1. Wild Hesperis.

Hesperis vulgaris. *Pl. 34. 6*

The root is composed of many thick fibres.

The first leaves are very numerous, long, narrow, and of a dusky green: they are sharp-pointed, somewhat indented at the edges, and have short footstalks.

The stalk is single, upright, firm, and not at all branched, unless when luxuriant in the growth, and then only toward the top.

The leaves are large and oblong: they are of a deep dusky green, and are broadest at the base, sharp-pointed, and dented at the edges: those toward the top of the plant have no footstalks; and those on the lower part have short ones.

The flowers are large and beautiful: they are of a purplish colour, sometimes very faint, sometimes deeper, and sometimes altogether white.

The seed-vessels are slender and flattened, and often twisted; and the seeds are oval and small.

It is a native of our northern counties, Cumberland and Westmoreland; and flowers in May.

C. Bauhine calls it *Hesperis sylvestris inodora*; and most describe it under the name of *Hesperis bortenfis*: for there is no specific difference in the two plants. In our gardens, by the assistance of culture, the flowers become larger, striped, and doubled. Our gardeners, not very nice or careful about names, call it *rocket*; and in these appearances the *Striped rocket*, and *Double rocket*.

2. Jack by the hedge.

Hesperis allium redolens. *Pl. 34. 7*

The root is long, whitish, irregularly con-
torted, and divided into several parts.

The first leaves are roundish, but indented for the stalk, and slightly nicked at the edges: they rise in a cluster, six or eight together, and have long, slender footstalks.

The stalk is round, firm, upright, of a yellowish green, scarce at all branched, and three feet high.

The leaves are broad, short, and heart-fashioned.

The flowers grow at the tops of the stalks, and are much less than those of the preceding, and of a lovely milk white.

The seed-vessel is long and slender; and the seeds are brown.

It is common under hedges, and flowers in May.

Ray calls it *Hesperis allium redolens*. Most others, *Alliaria*, from its flavour of garlic; in the taste, and lightly in the smell.

Linnaeus separates this from the *hesperis* kind, and makes it a species of *erysimum*. The difference is not very essential; and, as the plant is known by this name, we have preferred keeping it in this place.

The garden *hesperis*, which does not differ from the first of these wild ones, otherwise than by culture, is highly celebrated in Germany as a wound herb.

The common *alliaria*, last described, is eaten by our country people with their bread and butter, and is very wholesome.

Its juice, taken a spoonful at a time, is excellent against obstructions of the viscera: it works by urine. In some places it is a constant ingredient in clysters.

DIVISION II. FOREIGN SPECIES.

1. Hairy Hesperis.

Hesperis caule hirsuto. N. 34. 10

The root is composed of numerous, thick fibres.

The first leaves rise in a large tuft, and are oblong, broad, and of a dusky colour.

The stalks are round, not very firm, hairy, sometimes full of branches, at others quite simple, and a foot and a half high.

The leaves stand alternately on these, and are large, oblong, and of a dusky green: they are broad at the base, and narrower all the way to the point, and sometimes a little waved at the edges: the lower ones have short footstalks, the upper none.

The flowers stand at the top in considerable number; and they are large, but naturally of a dead colour: they vary in this, sometimes being simply redish, sometimes white, but oftener of a dusky hue, with purple veins.

The seed-vessel is long, and often twisted: the seeds are large.

It is a native of Hungary, and flowers in May.

C. Bauhine calls it *Hesperis montana pallida odoratissima*. Others, *Hesperis Panonica*, and *Hesperis obsoleta flore*.

The flower has great fragrance in an evening, but none in the day; whence the name.

2. Small heart-leaved Hesperis.

Hesperis humilia foliis cordatis. N. 34. 11

The root is long, slender, and furnished with a few fibres.

The first leaves rise in a thick tuft, without footstalks: they are short, broad, of a bluish green, sharply serrated, and sharp-pointed.

The stalks rise several together in the centre of this tuft, and are round, slender, of a pale green, and a little branched.

They have several leaves on the lower part, but are naked thence to the top.

These leaves are broad and short, and surround the stalk by a wide base, so that they have a heartlike appearance: they are of the same bluish green, and are indented in the manner of others.

The flowers stand in a little tuft at the top of the stalk; and are large, and of a beautiful colour, a purplish or bluish, sometimes paler, and sometimes deeper.

The seed-vessels are large, slender, and pointed, and the seeds are large.

It is common on the sea-coasts of France.

C. Bauhine calls it *Leucoium maritimum latifolium*, and most follow him; but it is properly a *hesperis*, the pods having nothing of that singularly divided top, that mark those of the others.

Leucoium has been a name given much at random by the old writers to plants of very different genera. The proper characters were not so easily established as to obviate this kind of confusion.

3. Melancholy Hesperis.

Hesperis filiquis articulatis. N. 34. 12

The root is long, divided, and furnished with numerous fibres.

The first leaves are long, large, and of a dusky green colour: they lie spread upon the ground, and they have short footstalks, and are deeply and irregularly sinuated at the edges.

The stalk is round, upright, firm, and a foot and half high; but at the top it usually drops.

The leaves are placed irregularly on it, and are oblong and broad at the base: they are dented along the edges, and sharp at the point.

The flowers are large, and of a deep purple: they stand at the tops of the stalks, and are fragrant in an evening.

The pods are waved, or as it were jointed; the seeds are large.

It is a native of the East, and flowers in June.

C. Bauhine calls it *Hesperis peregrina filiquis articulatis*. Others, *Hesperis Syriaca*.

G E N U S VII.

R O C K E T.

E R U C A.

THE flower is composed of four short petals, with very small bases: the cup is formed of four little, narrow, coloured leaves, and falls with the flower: the pod is long, of a roundish shape, and is divided into two cells by a membrane, which is somewhat longer than the two valves of which the pod is formed.

Linnaeus places this among the *tetradynamia filiquosa*; the threads in each flower being six, of which four are somewhat longer than the other two, and the seed-vessel a regular pod.

He joins this and the *symbrium* under one common character, taking away the established and more determinate name *eruca* or *rocket*, and calling most of these plants species of *water-cress*: he places others among the *cabbages*, *brassicæ*.

This tends to create confusion; for both kinds have very numerous species, and the distinctions are small. These genera approach very nearly to one another; but they have a difference in the petals, those of *eruca* or *rocket* being short, and those of the *symbrium* longer.

DIVISION I. BRITISH SPECIES.

1. Common Wild Rocket.

Eruca hylvestris vulgarior. N. 35. 1

The root is long and thick, and is furnished with many fibres.

The first leaves rise in a large tuft, and are long and beautifully divided: they have short footstalks: their colour is a pale green, and their division is so deep, and into such regular segments, that they resemble pinnated leaves.

The stalks are numerous, and of a pale green: they are divided into branches, and usually lean; especially toward the root.

The leaves stand irregularly on them, and are like those which grow immediately from the root, large, long, and deeply divided into segments, so that they appear pinnated.

The flowers are yellow, and they stand in a kind of spikes at the tops of the stalks.

The pods are long and slender, and the seeds small and brown.

The whole plant has a disagreeable smell.

It is frequent on old walls, and among rubbish in many parts of England. It flowers in July.

C. Bauhine calls it *Eruca major lutea caule aspero*. Others, *Eruca hylvestris*.

2. Little, wild-Rocket.

Eruca hylvestris minima. N. 35. 2

The root is long, slender, and furnished with many fibres.

The first leaves rise in a tuft, and spread themselves every way upon the ground: they are long, narrow, and deeply divided at the edges into numerous segments, so that they resemble the pinnated kind.

The stalks are numerous, round, upright, slender, very little branched, and eight inches high.

The leaves stand irregularly on them, and are long, narrow, and deeply divided, as the others, into the pinnated form, but with smaller segments.

The flowers are small and yellow: they stand in little tufts at the tops of the stalks, and are succeeded by long, slender pods.

The seeds are small and brown.

It is found in our northern counties, as also in the Isle of Man. It flowers in June.

C. Bauhine calls it *Eruca hylvestris minor lutea burse pastoris folio*. Ray, *Eruca monensis laciniata lutea*.

3. Water-Rocket.

Eruca aquatica.

The root is long, slender, and furnished with numerous fibres.

The first leaves are long and beautiful; each is composed of five or six pair of pinnæ or small leaves joined to a middle rib, with an odd one at the end: they are of a yellowish green, and of a tender substance.

The stalks are numerous, weak, and branched: they are a foot and a half high, but not very erect.

N° 24.

The leaves are placed irregularly on them, and are of the same form with those from the root, the several pinnæ or smaller leaves being jagged also in two or three places.

The flowers stand at the tops of the stalks and branches, and are small and yellow: the pods are slender, and but moderately long.

The seeds are small and brown.

It is common by rivers, and about the edges of shallow ponds. It flowers in July.

C. Bauhine calls it *Eruca hylvestris minor luteo flore*. The generality of writers, from its place of growth, not common to the other, *Eruca aquatica*.

4. Common Winter-Cress. N. 35. 3

Eruca glabra flore minore barbarea dista.

The root is long and thick, and has a few fibres.

The first leaves rise in a tuft, and have a very pretty appearance: they are long, large, and of a very deep, but glossy green: they are divided, somewhat in the pinnated manner, into two pairs of segments, and a large, broad part at the end.

The stalk is upright, firm, striated, and two feet high.

The leaves stand thick upon it, and are like those from the root in shape and colour.

The flowers are small and yellow: they stand in a thick tuft at the tops of the stalks and branches, and are followed by longish, slender pods.

The seeds are numerous, small, and brown.

It is common every where by hedges, especially where the ground is somewhat damp. It flowers in April.

C. Bauhine calls it *Eruca lutea, seu barbarea*. Others, *Nasturtium hybernum*.

5. Early Winter-Cress.

Barbarea præcox foliis frequentius sinuatis.

The root is long, slender, white, and full of fibres.

The first leaves are small, and stand in a thick little tuft: they are composed each, as it were, of three pair of pinnæ, and a great rounded leaf at the end; but the divisions do not reach to the rib, and they are only parts of an entire leaf thus divided into segments.

The stalk is round, slender, yellow, and a foot high.

The leaves are placed irregularly on it, and are few: they are deeply divided into several pairs of segments, with an odd leaf at the end of each, and are of a yellowish colour: their principal difference from those of the common kind, is in the frequency of this division.

The flowers are small and yellow, and the pods are small and slender.

It is common on ditch-banks, and flowers in April, a week or fortnight before the common kind.

It might seem only a variety of that; but experience

P p p

perience shews they rise distinctly from the separate feeds.

Ray calls this *Barbarea foliis minoribus et frequentius sinuatis*. Others, *Barbarea praecox*.

Ray separates these three last plants from the two first, under the title of *eruca sparia*; but as the principal distinction he gives is in the taste, there was no occasion to treat of them distinctly. He also very properly adds to them the plant called *hedge-mustard*, though commonly joined to the *erysimums*, to which it is less like in the pod.

6. Hedge-Mustard. *H. 33. 4*

Eruca sylvestris erysimum vulgare dista.

The root is long, slender, and furnished with many fibres.

The first leaves are large, numerous, and of a faint, but pale green: they are very deeply divided, in resemblance of the pinnated form, and are cut and jagged also on the edges of the segments.

The stalk is round, firm, upright, very much branched, of a pale green, very tough, and a foot and half high.

DIVISION II. FOREIGN SPECIES.

1. Garden-Rocket.

Eruca sativa.

We have often had occasion to complain of the improper names given by our English gardeners to the plants brought into their care for their use or beauty. In the present plant we have a singular instance: they know it little, and, when they have any acquaintance with it, 'tis under the name of *rocket*. This is only a depraved way of speaking the proper word; but that they use as the name of a plant altogether different, as we have shewn already. The common *hesperis*, or *dames violet*, is what they call *rocket*.

The true *garden rocket*, here to be described, is a tall plant, of irregular growth, and no great beauty: it got its place in gardens not as a flower, but useful plant.

The leaves are placed irregularly on it, and resemble those from the root, being deeply divided, in resemblance of the pinnated form, and the segments again notched at their edges.

The flowers are small and yellow: they stand in little tufts at the tops of the branches, and are but of short duration.

The pods are very slender, and stick close to the stalks.

The seeds are small and brown.

It is common on dry banks, and flowers in July.

C. Bauhine calls it *Erysimum vulgare*. Ray, *Eruca hirsuta siliqua cauli appressa erysimum dista*.

This species of *rocket* is celebrated against diseases of the lungs. The juice is excellent in asthma, and a syrup made of it in all oppressions and stuffings up of the breast, as also against inveterate coughs. The other species are of the nature of the *garden-rocket*, celebrated as a provocative to venery; but their virtues are inferior to those of this cultivated kind.

The root is long, slender, hard, and furnished with many fibres: the first leaves are numerous, long, and irregularly divided in the pinnated manner, with a great, odd segment at the end.

The stalks are numerous, round, upright, and a yard high.

The leaves on them stand irregularly, and resemble those from the root, but that they are more deeply divided.

The flowers stand in a loose spike, at the top of the stalks, and are of a faint, yellowish hue, streaked with black.

The seed-vessels are long and thick.

It is a native of Italy, and flowers in August.

C. Bauhine calls it *Eruca latifolia sativa alba Dioscoridis*. Others, *Eruca sativa*, *Eruca hortensis*, and *Eruca Romana*.

GENUS VIII.

CABBAGE.

BRASSICA.

THE flower is composed of four petals, of an oval form, undivided, regularly opening in a cross-like form, as in the rest of this class, and with slender bottoms: the cup is composed of four greenish leaves, and falls with the flower: the seed-vessel is long, rounded, but depressed each way, and is parted into two cells by a membrane, which is longer than its two sides: the seeds are round, and the leaves are large and fleshy, and of a bluish green.

Linnaeus places this among the *tetradynamia filiquosa*; the flower having six threads, four of which are longer, and two shorter, and the seed-vessel being a regular pod.

He confounds together this and the *turnip* under one common name, making the *turnip rape*, and *navew*, species of *cabbage*: but in this, as other the like instances, his attachment to the smaller parts of the flower leads him to do violence to nature. The *turnip* and *cabbage*, though they agree in many things, differ in others: the cup of the *turnip* is opener than that of the *cabbage*, and yellow; whereas that of the *cabbage* is green. The leaves also differ, and the root in many instances in all the whole external face of the plant. This, however he has disregarded it, ought to be taken notice of in all distinctions. The *rape*, *navew*, and *turnip*, are indeed all evidently of the same kind, as we shall shew; but they constitute a genus quite distinct from the *cabbage*.

DIVISION I. BRITISH SPECIES.

1. Sea-Cabbage.

Brassica maritima.

The root is long, thick, divided into many parts, and furnished with long fibres.

The first leaves are large, long, and rounded at the ends, and they quickly fade.

The stalk is thick, spongy, and of a pale greyish colour, rough on the surface, and often decorated from the bottom with young sprouts.

At the height of a foot or two above the ground, burst out the principal leaves: they are very large, long, thick, broad, divided irregularly into a number of rounded segments at the edges, and terminated by a great, round part at the end: they are of a greyish or bluish green colour, and of a very thick substance; and, in the wild state, the veins are usually purple.

The main stalk, from the same part where the leaves rise, sends out many branches: these are slender, round, greyish, and usually covered with a dusty substance.

The leaves on these are oblong, but less divided than the others.

The flowers are considerably large, and yellow: the pods are long and thick, and the seeds are large, round, and of a deep purplish brown.

It is frequent about our sea-coasts, and flowers in July: In gardens it grows to a vast height and bigness.

Morison calls it *Brassica maritima arborea*, *sea procerior ramosa*. Others only, *Brassica maritima*.

Linnaeus makes it the same species with the common *cabbage*; but this is one of those instances in which he has reduced the number at the expense of Nature's distinctions.

2. Perfoliate Cabbage.

Brassica sylvestris perfoliata flore albo.

The root is long, slender, white, and furnished with a few fibres.

The first leaves are large, broad, oblong, undivided, and of a bluish green.

The stalk is round, firm, upright, very much branched, and two feet and a half high.

The leaves stand alternately on it, and at considerable distances: they are broad and oblong, of a shape somewhat inclining to heart-fashioned; and they surround the stalk at the base: they are obtuse at the end, not at all divided at the edges, and of a bluish green.

The flowers stand at the tops of the branches, and are moderately large and white.

The seed-vessels are very long, and the seeds are brown, large, and round.

It is wild in our corn-fields, but not common. It flowers in August.

C. Bauhine calls it *Brassica campestris perfoliata flore albo*; and most others follow him.

DIVISION II. FOREIGN SPECIES.

Garden-Cabbage.

Brassica sativa vulgaris.

We are not to consider in the description of this plant the *cabbage* in its form for the kitchen, that being no more than a convolution of its leaves over one another; but, considering the herb in the same light with others, as consisting, when perfect, of root, stalk, leaves, and flowers, and seeds, it is so to be described, as a *cabbage-plant* gone to seed.

The root is composed of a multitude of crooked fibres, connected to an oblong body.

The main stem is round, thick, rough, and of a whitish colour: this is of a middle nature between a stalk and a root: it is not hard as a stalk, but tender as a root, and may be properly enough called a part of the root rising above the ground.

The leaves stand in a cluster at the top of this, and are very large, and of a bluish green: they are rounded at the extremity: they have some divisions toward the base when they grow freely, and they are of a very thick and fleshy substance.

The stalk rises in the center of these, and is round, upright, branched, and four feet high.

The leaves on this are oblong, and blunt at the end, of the same fleshy substance, and of the same pale green with the others.

The flowers are small and yellow, and they stand in a kind of spikes at the tops of the stalks.

The seed-vessels are long, and the seeds are large, round, and of a purplish brown.

It is a native of Italy, and flowers in July.

In the wild state it is smaller, and has more leaves on the flowering stalk; but there is no other difference. Those who have seen specimens of this can never suppose, either that it is the same with the English *sea-cabbage*, or that the latter is the original plant of the *cabbage* kind, for it is plainly this.

Such is the appearance of the plant which affords us the *cabbage* for our tables, when growing freely in gardens, and running up to seed its own way; or when wild in the fields of Italy: but from this single plant the industry and skill of the gardeners in preceding ages have furnished us with a vast variety of kinds.

The round and oblong *cabbages*, distinguished by modern gardeners under various names, are the plainest and easiest products.

The *curled cabbage*, and what we call the *jagged* or *ragged cabbage*, proceed from the same stock. The *red*, the *white*, the *purple*, and the *green cabbages*, are only varieties of the same. The *ragged*, *red*, and the *parsley-leaved cabbage*, all enumerated by C. Bauhine and others, are luxuriances of nature in the same kind; as is also the

the *fringed cabbage*: but the greatest luxuriance of all is the *cauliflower*: this is only a botryoid excrecence of the same plant.

The variations in the leaves, their form, division, and disposition, are not all we have to name in this plant, for the root and stalk afford an ample fund for the same sportings of Nature, thrust out of her common road by art. The *cabbage* with a round root, called the *turnip-rooted cabbage*, differs in nothing but this swelling of that particular part from the others: and the *celerape*, which has the swelling, not in the root below ground, but in the middle of the stalk, as it is called, above, is in the same manner only a variety.

Thus the *cabbage* and *savoy*, the *brocoli*, the

cauliflower, and the rest, are to be considered by the botanist only as one species; in the culture of which he will view with pleasure this surprising variety of appearances: and, when he enters the ground of a London gardener, and sees the small *mafcovite*, the *flat* or the *sugar-loaf cabbage*, he will refer them all to the same common stock.

The pleasant taste and wholesome qualities of the *cabbage* have introduced it into our gardens, and recommended it to all that care under which it has made these various appearances. Eaten moderately, it is perfectly innocent and wholesome; but it will sometimes breed flatulencies.

G E N U S IX.

T U R N I P.

R A P U M.

THE flower is composed of four petals, regularly disposed cross-ways: the cup is formed of four leaves, which spread open, and are of the same colour with the flower: the seed-vessel is long, and compressed both ways: the seeds are large and round: the membrane, which divides the pod, stands out in a point at the end.

Linnæus places this among the *tetradynamia filiquosa*; the threads in the flower being six, four of which are longer than the other two, and the seed-vessel a regular pod.

He joins, as before observed, the *cabbage* and *turnip* under one common genus; but the cup shews a sufficient difference, as well as the whole plant.

DIVISION I. BRITISH SPECIES.

1. Wild Navew.

Rapum napus sylvestris dictum. Mos.

The root is long, thick, white, and furnished with a few fibres.

The first leaves are long, and moderately broad: they are of a pale green, and are very deeply divided in an irregular manner on the edges.

The stalk is round, firm, upright, of a pale bluish green, and three feet high.

The leaves stand irregularly on it, and have no footstalks: they are unlike those at the root, broad at the base, where they surround or enclose the stalk, and smaller to the point; sometimes a little divided, but more frequently only waved at the edges.

The flowers stand at the tops of the stalks and branches in a kind of tufts: they are small, and yellow.

The seed-vessel is long, and the seeds are large and round.

It is common on the ditch-banks, and flowers in June; at which time it very much resembles the *turnip* when in flower.

C. Bauhine calls it *Napus sylvestris*, and most others follow him.

It is cultivated also in gardens, and then is called *Napus sativa*, *Navew gentle*, and *garden-navew*; but though larger in this condition, it is no other way different.

The plant which is cultivated in some parts of England under the name of *rape*, and *coleseed* plant, is this raised by culture to something like the figure of the *garden-navew*, the field-culture giving it a middle aspect between the two. From the seed of this plant is made *rape-oil*.

The seeds are also used in some of the compound medicines of the shops; and much learned nonsense has been written to shew, whether the original authors of those medicines intended the *wild navew* seed, or that of the *garden-navew*. The druggists mean time use *turnip-seed* for both, and do no harm by the exchange: whether they take the *rape seed*, *cole-seed*, *turnip-seed*, or that of *wild navew*, the difference is little in the small proportion they bear to the whole in those several medicines.

DIVISION II. FOREIGN SPECIES.

1. The common Turnip.

Rapum vulgare. Mos.

This plant, though so common in our fields, as well as gardens, is not a native of our country.

The root is large, thick, and usually roundish: but in this respect it varies greatly, sometimes being oblong, sometimes very flat, and at others a perfect globe: from this, and from its colour, which is sometimes white, sometimes in part purplish, and sometimes yellow, the gardeners and farmers

farmers have distinguished three or four kinds; but the botanist is to know these are no more than accidental varieties, or the effects of culture, and that the plant is the same in all, there being but one known species of what is properly called *turnip*.

The leaves are numerous and large: they are long, and considerably broad, deeply and irregularly divided at the edges, and of a yellowish green colour, and rough to the touch.

The stalk is round, firm, upright, and three or four feet high.

The leaves on it are smaller, and less divided than those at the root, the upper ones being simple, and of a heart-fashioned shape, without any division.

The flowers are small and yellow: they stand at the tops of the stalks many together.

The seed-vessel is long, and the seeds are large and round.

G E N U S X.

M U S T A R D.

S I N A P I.

THE flower is composed of four short, roundish petals, expanded cross-ways, with very short, narrow bottoms: the cup is formed of four leaves, and spreads wide open; its leaves are narrow, and hollowed, and its opening is in a cross form, and the whole falls with the flower: the seed-vessel is long and rough, and the membrane that divides it within into two cells stands out to a very considerable length beyond the end of the pod, and is large and flattened: the seeds are numerous and round.

Linnæus places this among the *tetradynamia filiquosa*; four of the six threads that are in the flower being longer than the other two, and the seed-vessel being a regular pod.

He dislikes the termination of the old name, and writes it *sinapis*.

DIVISION I. BRITISH SPECIES.

1. Common Mustard.

Sinapi vulgare. Mos.

The root is long, slender, white, and hung with many fibres.

The leaves that rise from it are long and large: they are deeply divided at the edges, so as somewhat to resemble the pinnated form, and they are terminated each by a broad, large, round piece at the end.

The stalk is round, upright, firm, and not much branched; it is two feet and a half high, and is rough toward the bottom, as are also the leaves; and smooth at the top.

The leaves are placed irregularly on it, and are, like those from the root, long, sinuated at the edges, of a pale or yellowish green, and rough to the touch.

The flowers are small and yellow: they stand in a kind of spikes at the tops of the stalk and branches.

The seed-vessels are oblong, but not so long as in most of the other plants of this class; and they stand upright, and near the stalk.

The seeds are numerous and round.

We cultivate this in fields and gardens for the seed; but it is also wild in our corn fields, and in waste places.

Nº 24.

It is a native of Spain, and flowers in July.

C. Bauhine calls it *Rapum sativum rotundum*, and most others follow him.

This author, as well as many others, distinguish the *long-rooted turnip* under the name of a peculiar species, calling it the *long turnip*, and the *female turnip*; but it is, as we have already observed, nothing more than a variety.

The *turnip* is a wholesome root, used more in food than medicine, but not altogether without virtues in that respect.

The juice of unripe *turnips*, that is, small green ones, with white wine, has sometimes cured quartan agues.

The roots, as eaten at table, are celebrated as antiscorbuticks, if eat frequently, and for a length of time; and externally they are commended, by way of poultice, boiled soft with bread and milk, against swellings of the breasts.

This is the plant whose seeds are the common *mustard-seed*, much used in our kitchens, and so valuable in medicine.

J. Bauhine calls it *Sinapi sativum filiqua longa glabra semine ruffo sive vulgare*. Others, *Sinapi vulgare*.

2. White Mustard.

Sinapi album filiqua birsuta.

The root is long, slender, white, and furnished with many fibres.

The first leaves rise in a large tuft, and are long, broad, of a yellowish green, rough to the touch, and very deeply and irregularly jagged, often down to the rib.

The stalk is round, upright, and divided into many branches.

The leaves on this are numerous and large: they are rough, and very deeply jagged, and have long footstalks.

The flowers are small and yellow: they stand in considerable numbers at the tops of the branches, and are followed by long, hairy pods.

The roughness of these seed-vessels is not their only distinction from those of the common *mustard*: they stand out from the stalk, whereas the others run almost parallel with it; and they are as

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the seeds shewing themselves through them.

The seeds are naturally white, whence the plant has its name *white mustard*; but they sometimes lose that colour, and become brown or redish: they are very large and round.

J. Bauhine, who is happier in his distinctions of the *mustard* kind than Caspar, calls this *Sinapi album filiqua hirsuta semine albo vel ruffo*. C. Bauhine calls it *Sinapi apii folio*; but this is not a good character of the leaf, the division not being so frequent or deep as to require such a description.

It is common in waste places, and is often cultivated in gardens.

The two kinds of *mustard* agree in their virtues, which are very considerable.

The young shoots are eaten as salad with those of radish, and some others: these make together what the gardeners call *young sallading*, or *spring sallading*; and this way they are very wholesome.

The seeds are of frequent use at our tables, and are very wholesome: but, beside their use with our food in the way of *mustard*, they are frequently taken whole as a medicine.

This way given, they are excellent against rheumatic complaints, and against the falling-sickness. They operate by urine, and moderately promote the menses; and at the same time that they have these several good effects, they strengthen the stomach, prevent flatulences, and create an appetite.

A table-spoonful of the seeds unbruised may be taken for this purpose every morning.

In those pains of the back to which gouty people are subject, and which are usually attended with somewhat of the gravel, this is an excellent remedy.

The seeds bruised, and applied to the skin, bring on a redness and heat: they are a gentler kind of blister, and in this use are called *sin-*

apisms. These are good in paralytic cases, and often in fevers attended with light-headedness.

3. Charlock. *Matossing*
Sinapi arvense rapistrum dictum.

The root is long, slender, white, and furnished with a few fibres.

The first leaves are long, large, and of a dead yellowish green: they are deeply divided at the lower part, in such a manner as to bear a rude resemblance of the pinnated form, and terminated by a large, oblong piece; that and all the other segments being somewhat pointed at the ends, and serrated at the edges.

The stalks are numerous, round, branched, and a foot and a half high; but they do not stand regularly upright.

The leaves on the lower part of these stand irregularly, and resemble those from the root; but those near the tops of the branches are simple, small, oblong, and undivided.

The flowers are moderately large and yellow.

The pods are large, long, and full of large seeds: they stand out from the stalks.

The seeds are of a deep blackish colour.

It is very frequent in cultivated land, to the great injury of the farmer. It flowers in July.

C. Bauhine calls it *Rapistrum arvense flore luteo*, and others follow him.

The first appearance of this plant is not unlike that of the turnip, and very unhappy mistakes have arisen from this resemblance. A farmer who has sent in unskilful weeders to clear a turnip-field, has had all his turnips pulled up, and all the *charlock* left. The roots at this early period of growth have little difference; but the *charlock* leaves are more pointed at the ends.

There is a white-flowered plant, commonly numbered with the *charlock* among the *mustard* kind; but it is properly a *rapbanistrum*, and will be described in its place in a succeeding genus.

DIVISION II. FOREIGN SPECIES.

1. Rocket-leaved Mustard.

Sinapi eruce folio. M35.10

The root is long, slender, and hung with a few fibres.

The first leaves are numerous, and very large: they are long, broad, and regularly divided into four or five pairs of segments at the edge, so that they resemble pinnated leaves: all these segments, as well as the terminating one, are long, narrow, and undivided, and the whole leaf is of a faint green.

The stalk is round, upright, and divided into many branches: it grows to a foot and half high, and thick set with leaves: these are large, and in

all respects resemble those from the root, each being divided deeply into narrow segments.

The flowers are small and yellow: they stand at the tops of the stalks and branches, and are but of short duration; but they are quickly succeeded by others.

The seed-vessels stand in a long spike, and at a good distance from the stalk.

The seeds are large and brown.

It is common in France and Italy, and flowers in June.

C. Bauhine calls it *Sinapi eruce folio*, a name very well expressing the plant, its leaves much resembling those of the *wild rocket*. Others, *Sinapi sylvestre minus*.

GENUS

GENUS XI.

RADISH.

RAPHANUS.

THE flower is composed of four petals, disposed cross-ways; these are of a heart-fashioned shape, and have very slender bottoms, which are a little longer than the cup: the cup is formed of four leaves, which are narrow, oblong, erect, and thick at the base; they do not open much, and the whole cup falls with the flower: the seed-vessel is thick, rounded, spungy, swelled out by the seeds in separate parts, so that it appears jointed, and is terminated by a long point: the seeds are numerous, large, and round.

Linnaeus places this among the *tetradynamia filiquosa*, four of the six threads in the flower being longer than the other two, and the seed-vessel being a regular pod.

He very rashly joins under this head the *rapbanistrum* and *cakile* of authors; they properly belonging to separate genera: we shall shew the distinctions.

DIVISION I. BRITISH SPECIES.

Wild white Radish. *M35.11*

Raphanus sylvestris radice albente.

The root is long, thick, fleshy, and perfectly like the *common radish* of our gardens, but that it is white: the taste is like it, but milder, and the substance only a little harder from its growing in worse ground; sometimes it is crooked, or split from stones in its passage: but when it has free growth, any one would call it a *white radish*.

The leaves are large, long, and very deeply divided into a number of pairs of segments, resembling so many pinnae, and a roundish piece at the end: they are of a dusky green, and somewhat rough to the touch.

The stalk is round, upright, smooth, divided into many branches, and two feet high.

DIVISION II. FOREIGN SPECIES.

1. Garden-Radish.

Raphanus vulgaris.

This, though so commonly cultivated among us, is not a native of our country.

The root is long, slender, and fleshy, of a delicate purple or redish colour, mixed with white, and of a sharp, pleasing taste.

The leaves are large, long, and in their division plainly pinnated: each consists of four or five pairs of roundish pinnae, with a larger also rounded at the end.

The stalk is round, firm, upright, and three feet high: it is divided into several branches, and has a few leaves placed irregularly on it.

These are composed of narrower pinnae than those from the root, and are of a paler colour.

The flowers are very numerous, and moderately large: they stand at the tops of the branches; and are white, with a tinge of purple or red, more in some, and less in others.

The seed-vessel is thick, fleshy, or spungy, and swelled out into a kind of joints.

The seeds are large, and of a redish or purplish colour: one lies in every swelling of the pod.

It is a native of Spain, and flowers in June.

C. Bauhine calls it *Raphanus minor oblongus*. Others, *Raphanus sativus*, and *Raphanus vulgaris*.

2. Round black Radish. *M35.10*

Raphanus radice rotundo nigro.

The root is of the shape and bigness of a small turnip, black on the outside, white within, and of a fleshy substance: it is of a firmer texture than the *common radish*, and of a taste not unlike it, but to many palates more agreeable.

The leaves that rise from this are long, pinnated, and of a black green: the several pinnae are narrower than in the *common radish*, and are jagged at the edges, and terminate in a point.

The stalk is round, upright, thick, firm, and two feet high.

The leaves on its lower part resemble those from the root; but those on the upper part are small, simple, and only notched at the edges.

The flowers are small and purplish, but with some white, and they grow at the tops of the stalks and branches.

The pods are thick, fleshy, spungy, and jointed.

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The seeds are large, roundish, and dark coloured.

It is a native of Italy, and flowers in July.

C. Bauhine calls it *Rapbanus major orbiculatus five rotundus*. Others, *Rapbanus rotundus niger*.

Linnaeus supposes it only a variety of the common radish; but this contradicts reason.

3. Long, jagged leaved black Radish.

Rapbanus foliis laciniatis radice longo nigro.

The root is long, thick, and furnished with a few fibres: it is black on the outside, white within, and of a pleasing taste; in shape it somewhat resembles the common garden-radish; but it differs altogether in colour, flavour, and substance: in all these respects it approaches more to the nature of the round, black radish; but in the leaves it differs both from that and the other in the most obvious and distinct manner; so that although confounded by Linnaeus with the other as a variety of the common radish, it is plainly a distinct species.

The leaves are long, large, and deeply jagged: the segments are placed irregularly two or three

on each side, but not in pairs, and the ribs of the leaf between them is jagged: they are also nicked at the edges, as is the terminating segment, and all of them are sharp-pointed.

The stalk is round, upright, firm, of a pale green, and a yard high.

The leaves on it are few, and placed irregularly; but they resemble those from the root in form, and are rough to the touch, and of a pale green.

The flowers grow at the tops of the stalks and branches, on branched footstalks: they are large, whitish, with a tinge of red, and quickly fall.

The seed-vessel is thick, rounded, spungy, and jointed: the seeds are large, roundish, and brown.

It is a native of Spain, and flowers in June.

C. Bauhine calls it *Rapbanus niger*. Others, *Rapbanus niger radice pyriformi*.

The qualities of all these radishes are the same, and they are more used at table than in medicine.

They work by urine, and are said to be sweeteners of the blood, and good against the scurvy; but they will agree with few stomachs.

GENUS XIII.

BASTARD RADISH.

RAPHANISTRUM.

THE flower is composed of four petals, disposed regularly cross-ways one to another; these are broad, and have very short and very slender bottoms, a little longer than the cup: the cup is composed of four little, oblong leaves, thick at the base, and standing close. The seed-vessel is a jointed pod, and, when ripe, it naturally breaks at the joints, and lets out the seeds; and it is not spungy, as in the radish.

Linnaeus places this among the *tetradynamia filiquosa*, four of the six threads in the flower being longer than the other two, and the seed vessel being a regular pod; but he takes away its established and distinctive name, making it a species of *radish*. From this it differs in the singularity of the pods, being jointed, and separating naturally at the joints: the *radish*, in the same manner, differs from all other genera of this class, in the pods being spungy. That character it possesses alone, and is by it distinguished from this genus; as this is from all others, by the jointed structure, and naturally separation of the pod.

As we have no proper English name for this genus, *bastard radish* being a compound and improper one, and some of the species being called by authors otherwise improperly, it will be best to retain the Latin name *raphistrum*.

DIVISION I. BRITISH SPECIES.

1. White-flowered Raphanistrum.

Raphanistrum flore albo filiqua articulata.

The root is long, slender, white, and furnished with many fibres.

The leaves that rise from it are large, oblong, and broad, and have long, thick footstalks: they are composed, as it were, of one pair of pinnæ, and a large piece at the end; and their colour is a deep green: they are rough to the touch, and somewhat hairy.

The stalks are numerous, round, weak, hairy, upright, and very much branched.

The leaves are placed irregularly on them, and resemble those from the root: they are rough, and of a somewhat paler green.

The flowers are large, white, and usually streaked with red, or a pale purple: they are not unlike some of the small single stock-julyflowers.

The seed-vessel is long, slender, and jointed: it is not hairy, as the rest of the plant, but perfectly smooth; and, when the seeds are ripe, it drops to pieces at the joints: the seeds are round and brown.

It is common in corn-fields, and flowers in July.

C. Bauhine calls it *Raphanistrum flore albo filiqua articulata*; a name used by most others. We call it commonly *White-flowered charlock*, with a jointed pod: but this is very improper, for charlock is a species of mustard.

2. Yellow-

2. Yellow-flowered Raphanistrum.

Raphanistrum flore luteo. N^o 35. 15

The root is long, slender, white, and furnished with many fibres.

The first leaves are large and oblong: they are broadest at the base, sinuated at the edges, and sharp-pointed; and they are supported on short footstalks: they are rough to the touch, and of a deep green.

The stalk is round, upright, firm, two feet and a half high, and divided into many branches.

The leaves on it are numerous: they are placed irregularly, and they resemble those from the root:

they have very short footstalks, and are deeply and irregularly sinuated.

The flowers stand at the tops of the stalks and branches, and they are small and yellow.

The pods are long, and moderately thick: they are jointed, and of a pale green, and, when ripe, they break asunder at the joints.

The seeds are round, large, and brown.

It is common in corn-fields, and flowers in July.

Ray calls it *Rapistrum flore luteo filiqua glabra articulata*. Our people, *Yellow charlock*, with a jointed pod.

DIVISION II. FOREIGN SPECIES.

Dwarf Raphanistrum.

Raphanistrum humile foliis divisis.

The root is a small, white fibre; little more.

The first leaves are oblong, narrow, and sharp-pointed: they are deeply divided at the edges, in the manner of pinnated leaves, but not quite to the rib.

The stalks are numerous, slender, weak, and not more than five or six inches high: they generally trail upon the ground two thirds of their length.

The leaves on them are few, so that they appear for the greater part naked: these stand irregularly, and are like those from the root.

The flowers are small and yellow, and they stand in tufts at the tops of the stalks.

The seed-vessel is long and jointed, and the seeds are small and brown.

It is a native of Siberia, and flowers in June.

Gmelin calls it *Rapbanus foliis pinnatis pinnis confluentibus filiquis teretibus articulatis*. The whole plant has greatly the aspect of the wild rocket in miniature.

The seeds of the white raphanistrum are said to operate powerfully by urine; but there is not certain authority for it. The virtues of the others are not known. They are very troublesome to the farmers as weeds.

GENUS XIII.

WATERCRESS.

SISYMBRIUM.

THE flower is composed of four oblong petals, which are disposed crosswise, and have very small bottoms: the cup is formed of four little, narrow leaves: these spread tolerably open, and are coloured; and the whole falls with the flower: the seed-vessel is crooked and short; and the membrane that divides it within is somewhat longer than the two sides: the seeds are numerous and small.

Linnaeus places this among the *tetradynamia filiquosa*; four of the six threads in the flower being longer than the other two; and the seed-vessel a regular pod: but he very improperly joins with the watercresses many plants not allied to them: these we shall give under other regular genera, and in their proper places.

1. Common Watercress.

Sisymbrium vulgare. Pl^a: 37. 16

The root is long and creeping: it runs under the mud, and has tufts of fibres at small distances.

The first leaves are long and pinnated: each is composed of two or three pairs of pinnæ, with a large leaf at the end; and these separate pinnæ are short, broad, and have no footstalks.

The stalks are round or flatted, and of a pale green: they are striated, weak, and very much branched: they are pinnated, as those from the root, but the pinnæ are somewhat smaller.

The flowers are little and white: they stand in small tufts, and at the tops of the stalks and branches.

The seed-vessels are slender, and not very long; and the seeds are small, and brown.

N^o XXV.

It is common in shallow waters, and flowers in May.

C. Bauhine calls it *Nasturtium aquaticum supinum*. J. Bauhine, *Sisymbrium cardamine sive Nasturtium aquaticum*.

It is an excellent antiscorbutick.

The juice of it is given in spring with that of brooklime, and some other plants of the same character; but it has more virtue than them all. This is at best an unpleasant method of taking it: it is very agreeable, eaten as a salad; and there is no way in which it better exerts its virtues.

It opens obstructions, operates by urine, and promotes the menfes. Many medicines of great name, and nauseous taste, are inferior to this little plant in scorbutick disorders.

R r r

2. Small-

2. Small-leaved Watercress.

Sisymbrium foliis minoribus præcocius.

The root is a small tuft of white fibres. The first leaves are short and small: each consists of a single pair of little pinnæ, and a large, round piece for the termination: they are of a fleshy substance and a deep green colour, often brownish.

The stalks are numerous, weak, and low: they are not more than five inches in length; and they lie for the most part on the ground.

The leaves stand irregularly on them, and resemble those from the root; but that sometimes they have two pairs of pinnæ, beside the odd leaf at the end.

The flowers are small and white; and they stand in little tufts at the tops of the stalks.

The pods are slender, and longer than in the common kind; and the seeds are numerous, very small, and brown.

It is common about the sides of brooks, and flowers in April.

Ray calls it *Nasturtium aquaticum foliis minoribus præcocius*.

The same author mentions, as another species, the *Nasturtium aquaticum pinnulis paucioribus* of Mr. Doody; but it is the same with this. The taste is sharper in this small kind than in the other, and it is altogether distinct.

G E N U S XIV.

LADYSMOCK.

CARDAMINE.

THE flower is composed of four broad, obtuse petals, with very narrow bottoms regularly disposed, and expanding crosswise: the cup is formed of four little, erect, oblong leaves with obtuse ends; and it falls with the flower: the seed-vessel is a long, slender pod, of a rounded figure, but a little depressed, and it is composed of two valves, or sides, which, when ripe, roll back, and discharge the seeds with violence: the seeds are numerous, small, and round.

Linæus places this among the *tetradynamia filiquosa*; four of the six threads in the flower being longer than the two others, and the seed-vessel a regular pod.

DIVISION I. BRITISH SPECIES.

1. Common Ladysmock.

Cardamine vulgaris. Hb. 6. 1

The root is a tuft of slender, white fibres, penetrating deep into the ground.

The first leaves are long, and regularly pinnated, in a very beautiful manner: each is composed of five or six pair of pinnæ, which are short and roundish, and an odd one of the same shape at the end.

They are of a deep green colour, often brown, of a firm substance.

The stalk is round, upright, firm, not much branched, and a foot high.

The leaves on it are pinnated, but very unlike those from the root; for in these the pinnæ are all long and narrow: they stand irregularly on the stalk, and are not numerous.

The flowers grow at the top in a little tuft:

3. Jagged-leaved Watercress.

Sisymbrium serratis foliis. Hb. 6. 16

The root is long, slender, and furnished with many fibres.

The first leaves rise in a tuft, and they are large and beautiful: they are long, narrow, and pinnated: each is composed of four or five pairs of pinnæ, with an odd one at the end; and these are sharply serrated at their edges.

The stalk is upright, firm, and a foot high: its colour is a pale green, and it is striated, and branched toward the top.

The leaves are numerous, and placed irregularly: they are pinnated, and sometimes branched: their pinnæ are oblong, serrated at the edges, and of a pale green: and both they and the odd leaf at the end are sharp-pointed.

The flowers are small and white: they stand in small tufts at the tops of the stalks; and usually there are long rows of the pods under them when the plant has been any time in flower.

The pods are short and small; and the seeds are very small, and brown.

It is not uncommon in Hampshire, and has been found in many other parts of England.

Mr. Ray, among others, took this at one time for the impatient ladysmock, to be described hereafter: but he found the mistake afterwards.

C. Bauhine calls it *Nasturtium aquaticum erectum folio longiore*. Others, *Italian watercress*.

they are large and white, sometimes of a pure and perfect white; but at others, they have a bluish of purplish.

The seed-vessels are long and slender; and the seeds are little and roundish.

It is common in our meadows, and flowers in April.

C. Bauhine calls it *Nasturtium pratense magno flore*. Others, *Cardamine* and *Cardamine vulgaris*. The common people in some places, *Cuckowflower*.

2. Great flowered Ladysmock.

Cardamine flore majore elatior. Hb. 6. 2

The root is long, slender, and creeping; and has a number of large fibres irregularly growing from different parts.

The first leaves are large, and beautifully pinnated: they consist each of about four pairs of broad,

broad, roundish pinnæ, with a larger one at the end; and they are of a firm substance and deep green: the pinnæ, separately, as well as the whole leaf, are much larger than in the common kind.

The stalk rises in the midst of these, and is round, upright, very little branched, and two feet or more in height.

The leaves on it are numerous, and, like those from the root, each is composed of four or five pairs of pinnæ, with an odd one much larger than the rest at the end.

The flowers grow at the tops of the stalks, and of many young shoots from the bosoms of the upper leaves: and they are large and white.

The seed vessel is a long, slender pod; and the seeds are numerous and small.

It is frequent on boggy grounds in many parts of the kingdom; and flowers in May.

Ray calls it *Cardamine flore majore elatior*. C. Bauhine, *Nasturtium aquaticum majus et amarum*. Others, *Nasturtium aquaticum amarum*. Its common English name is *Bitter watercress*; the taste being bitter and pungent.

3. Impatient Ladysmock. Hb. 6. 3

Cardamine flore minimo impatientis.

The root is composed of many thick fibres, with other smaller ones hanging from them in great numbers.

The first leaves grow in a tuft, and spread themselves very regularly on the ground: they are long, narrow, and very beautifully pinnated: the pinnæ are small, of an oval figure, serrated at the edges, and very beautifully pointed at the end; and there are about five pairs of them on each rib, with an odd one of the same shape and size at the end.

The stalk is round, slender, upright, of a whitish colour, and a foot high.

The leaves stand irregularly, and are like those from the root, but longer and narrower.

The flowers stand at the tops of the stalks, and of branches rising from the bosoms of the upper leaves; and they are very small and white.

The seed-vessel is long, and very slender.

When it is ripe it bursts with violence, not only on the least touch, but on the smallest motion in the air; and the seeds fly out with violence: from this it obtained the name of *impatient ladysmock*: the seeds are round and small.

It is found in Ireland, and on the mountains in the north of England. Those who have mistaken the serrated watercress for this plant, have mentioned many other places, but in these it really is frequent.

It flowers in May.

C. Bauhine calls it *Sisymbrium cardamine species quedam infipida*. The generality of authors, *Cardamine impatientis*.

4. Hairy impatient Ladysmock.

Cardamine impatientis altera hirsutior.

The root is a cluster of small, white fibres.

The first leaves grow in a tuft, and are regularly pinnated: and they have about three pairs of pinnæ, with an odd one at the end; and these

are small and irregularly indented: they are of a dusky green, and somewhat hairy.

The stalks are numerous, weak, and scarce upright: they are of a pale green, striated, and very much branched.

The leaves on them resemble those from the root, and are, in the same manner, composed of pinnæ irregularly notched at the edges.

The flowers are small and white; and they grow in little tufts at the tops of the stalks and branches.

The seed-vessels are long and slender; and they burst with violence on the least touch when ripe: the seeds are small, round, and of a pale brown.

It is common in watery places, and flowers in April.

Ray calls it *Cardamine impatientis altera hirsutior*. C. Bauhine, *Nasturtium aquaticum minus*.

5. Daisy-leaved Ladysmock.

Cardamine pumila bellidis folio. Hb. 6. 4

The root is long, slender, and furnished with many fibres.

The first leaves rise in a small tuft, and are of a form altogether different from those of the other ladysmocks: they are simple, undivided, and not so much as notched at the edges: their shape is an oblong, tending to oval: they are clustered together, and have no footstalks, and they are of a dusky green, and somewhat hairy.

The stalk is round, upright, firm, of a pale green, not at all branched, and about three or four inches high.

The leaves stand irregularly on this, and have no footstalks: they are short, and broad at the base, from which they gradually decrease to a point.

The flowers stand in numbers at the top of the stalks, and are large and white, perfectly resembling those of the common ladysmock.

The seed-vessels are long and large; and the seeds are numerous, round, small, and brown.

It is common on the mountains in Wales, whence the winds seem to have blown some of its seeds to Bristol; the plant some years being very frequent on St. Vincent's rock.

C. Bauhine calls it *Nasturtium alpinum bellidis folio minus*.

6. Serrated dwarf Ladysmock.

Cardamine pumila foliis serratis. Hb. 6. 5

The root is long and slender; and is furnished with a few fibres.

The leaves grow very irregularly, but in a thick tuft, from the head of the root: some of them are singly fixed to pedicles from the root, others grow to a rib: they are oblong and serrated, narrowest at the base, and broader to the end, where they terminate in a pointed tip: their colour is a dusky green, and their taste bitterish and watery, but somewhat sharp.

The stalk is round, slender, usually naked, and about three inches high.

The flowers stand at its top; and they are large and white.

The seed-vessels are long and slender; and the seeds are small and brown.

It is a native of Wales, and flowers in April. Ray calls it *Nasturtium petraeum*. Johnston *Johnston's rockcress*; and most others have copied the same name, in honour of the person who first observed the plant.

There has not been much written of the virtues

DIVISION II. FOREIGN SPECIES.

1. Round-leaved trifoliate Ladysmock.

Cardamine trifolia. *N. 36. 6*

The root is composed of numerous small fibres, with some few thicker and longer among them.

The first leaves rise in a cluster, and they are very beautifully disposed: three grow on each footstalk, in the manner of the leaves of trefoils, and these are short, broad, and of a figure irregularly approaching to oval, or rounded: they are of a deep green at first, and when they have stood some time they become purplish: their taste is disagreeable, and acrid after they have been some time in the mouth.

The stalks are round, weak, of a purplish colour, and fix or eight inches high.

They have no leaves, except near the bottom, where there stand three upon a footstalk, as in those from the root, which they in all other respects also perfectly resemble.

The flowers stand at the tops of the stalks in a tuft, and are large and white.

The seed-vessel is long and slender; and the seeds are small and brown.

It is frequent in many of the northern parts of Europe among rocks; and flowers in May.

C. Bauhine calls it *Nasturtium alpinum trifolium*. Clusius and others, *Cardamine alpina trifolia*.

2. Trifoliate Ladysmock with pointed leaves.

Cardamine trifoliata foliis acuminatis. *N. 36. 7*

The root is composed of a multitude of fibres.

The first leaves rise in a thick tuft, and stand on long, slender, weak, purplish footstalks, three on each: they are broad at the base, serrated at the edges, and they terminate in a sharp point, which, from the middle leaf of the three, is usually longer than on the others.

The stalks rise among these, and are round, purplish toward the bottom, and very much branched.

The leaves stand alternately on them, and perfectly resemble those from the root, three broad, serrated, and pointed ones standing on every footstalk.

The flowers are small and white: they stand in a kind of spikes at the tops of the stalks and branches.

The pods are long and slender, and the seeds are round and purplish.

It is a native of Africa, and flowers in June.

Herman calls it *Nasturtium Africanum floribus albis spicatis foliis ternatis Christophoriana facie*.

of the *cardamine* kind, nor are they regarded in the present practice. The country people in the north bruise the whole plant of the common kind in spring, and take the juice, a wine glass at a time, against the scurvy, in the jaundice, and in all obstructions. It operates powerfully by urine; and they record many considerable cures performed by it.

3. Irregular-leaved Ladysmock.

Cardamine foliis ternatis et pinnatis. *N. 36. 8*

The root is long, slender, and white.

The first leaves rise in a small tuft, and have long footstalks: they usually stand three on each stalk; but the division is not so perfect and absolute as in the preceding species: these rather seem three parts of an entire leaf, whereas in those the three are absolutely distinct leaves.

The stalk rises in the midst of this tuft, and is weak, slender, branched, and eight or ten inches high.

The leaves stand irregularly on it, and are of an irregular form; some toward the lower part are trifoliate, or have a ternate division as those at the root; and others have two pairs of pinnated segments, and an odd one at the end; but these, as the divisions of the others, are not cut to the rib; there runs an edge from one to the other.

The flowers stand at the tops of the stalk and branches, and are small and white.

The seed-vessels are long and slender, and the seeds are small and round.

It is a native of the Pyrenean mountains, and flowers in June.

C. Bauhine calls it *Nasturtium Alpinum minus reflexe folio*; and others in general copy that name.

4. Flat-podded Ladysmock.

Cardamine foliis pinnatis siliquis compressis.

The root is a long, slender fibre, with a few little threads.

The first leaves are of an extremely beautiful form and disposition: they lie flat upon the ground, and are very numerous; so that they form a close circle: they are long, and very narrow: and they are divided with great regularity in the pinnated manner: the pinnæ are twelve or more on each, with an odd one at the end: they are narrow, and each has a single denticulation, and no more, on each side, and this is near the base.

The stalk is round, slender, weak, and scarce at all branched: it is eight inches high, and of a pale green.

There are only two or three leaves on it; and these resemble those from the root, but that they are shorter and broader in the whole, the divisions or pinnæ being fewer in number, and longer.

The flowers stand in a little tuft at the top of the stalk, and are small and white.

The seed-vessels are large, and very slender; and the seeds are small and brown.

It is a native of Virginia, and flowers in May.

The whole plant has some general resemblance of *shepherd's purse*, but that it is smaller, and in all parts more delicate.

Gronovius calls it *Abyssum foliis radicalibus pinnatis in orbem positis caulibus lanceolatis siliquis compressis*. We, *Virginian Ladysmock*.

G E N U S XV.

TOWER MUSTARD.

TURRITIS.

THE flower is composed of four petals regularly disposed cross-ways; these are of an oval, but somewhat oblong figure, obtuse, and undivided; and they stand erect, as do also their small bottoms: the cup is formed of four little, erect, oblong leaves, and falls with the flower: the seed-vessel is very long, slender, and of a squared shape, but two of the ridges are very faint: the seeds are numerous and small.

Linnaeus places this among the *tetradynamia filiquosa*, the flower having six threads, of which four are longer than the other two, and the seed-vessel being a regular pod.

As we have no single word in English for the name of this genus, it will be proper to use the Latin name *turritis*.

DIVISION I. BRITISH SPECIES.

1. Common Turritis.

Turritis vulgaris. *N. 36. 10*

The root is a cluster of small fibres: the first leaves are numerous, and they form a thick and large tuft: they are oblong, considerably broad, pointed at the ends, not at all divided at the edges, and they have no footstalks: their colour is a pale green, and they are rough on the surface.

In the centre of this tuft rise the stalks, which are usually numerous: they are round, upright, not at all branched, and a foot and half high.

The leaves on these differ altogether from those which rise from the root: they are of a heart-fashioned shape; but they run out into a long point; and they are of a bluish green colour, and perfectly smooth.

The flowers and seed-vessels, when the plant has been some little time in flower, stand at the top of the stalk in a long spike, resembling a tower, or other tall, upright building, whence the plant has its name: the flowers are small and white.

The pods are very long and slender, and they stand parallel to the stalk, and at no great distance from it.

The seeds are small, very numerous, and round.

It is common in our northern countries, and flowers in June.

C. Bauhine calls it *Brassica sylvestris foliis integris & bispedis*. Others, *Turritis vulgaris*.

2. Jagged-leaved Turritis.

Turritis foliis serratis. *N. 36. 11*

The root is long, slender, and furnished with many fibres.

The first leaves rise in a thick tuft, and have no footstalks: they are oblong, broadest in the middle, serrated at the edges, and sharp-pointed: their colour is a pale greenish, and they are hairy.

The stalks are numerous, upright, not much branched, and about ten inches high.

Nº 25.

The leaves on these are few, and stand irregularly: they are of an oblong, and somewhat oval figure, and are serrated at the edges, and pointed at the end.

The flowers stand at the tops of the stalks, and are small and white.

The seed-vessels are slender and long; and the seeds are very small and brown.

It is found on walls, and on dry ditch banks in many places, and flowers in May.

C. Bauhine calls it *Erysimo similis birsuta non lacinata alba*; but this, though copied by some, is an ill chosen, as well as awkward name; the plant is much more like the common *turritis*.

3. Oval-leaved Turritis.

Turritis foliis ovatis. *N. 36. 12*

The root is small and thready.

The first leaves are disposed irregularly in a little tuft: they are supported on short, slender footstalks, and are of an oval form, obtuse at the end, very slightly serrated at the edges, and somewhat hairy: their colour is a faint green, and they are of a tender substance.

The stalks rise in the centre of this tuft four or five together: they are very slender, upright, and of a whitish green.

The leaves stand irregularly on them, and are numerous: they are also of an oval figure, but they have no footstalks; and they are of a pale glossy green colour, and not at all hairy.

The flowers stand at the top of the stock in a little tuft, and they are small and white.

The seed-vessels are long and slender, and they stand out from the stalk: when the plant has been a little while in flower, there is a kind of spike of these, a third part of its length.

The seeds are small and yellowish.

We have it on ant-hills, in dry pastures, and on ditch banks in some places. It flowers in April.

Petiver calls it *Turritis minor foliis a*. Ray, *Brassica*

Brassica spuria caule magis folioso hirsutior. Others, *Pilosella filiquosa altera species.*

4. Branched Turrilis.

Turrilis ramosa foliis imis bispidis.

The root is small, slender, white, and furnished with a few fibres.

The first leaves are oblong, and considerably broad: they are of a greyish green, and somewhat hairy, and rough to the touch: these lie spread upon the ground in a circular manner.

The stalks are numerous, slender, weak, and branched.

The leaves on these stand irregularly, and are but few: they have no footstalks; they are of the same greyish green with those from the root, but they are not hairy.

The flowers are small and white.

The seed-vessels are long and slender: they usually are seen in a loose spike, under a little tuft of flowers, and are full of small, brown seeds.

It is common on walls and dry banks, and flowers in April.

Ray calls it *Brassica spuria minima foliis hirsutis et glabris*. Others, *Pilosella filiquosa thalii*. The common people, *Coddled mouse*.

DIVISION I. BRITISH SPECIES.

Great, various-leaved Turrilis.

Turrilis major foliis variis. Pl. 36. 13

The root is long, thick, and white, and is furnished with many fibres.

The first leaves are very long: they lie in a circular tuft upon the ground, and some of them are irregularly cut, and undulated at the edges, others altogether undivided: they are all rough to the touch, and of a dusky green.

The stalks are numerous, round, thick, upright, very little branched, and two feet high.

The leaves on these are numerous, irregularly placed, and altogether different from those about the root: they are of a form approaching to triangular, broad at the base, where they surround the stalk, and smaller all the way to the point;

and they are of a bluish green colour, and of a smooth and glossy surface.

The flowers stand in tufts at the tops of the stalks, and are white, with a tinge of yellowish, sometimes more, sometimes less.

The seed-vessels are long and slender, and the seeds are small and brown.

It is a native of Germany, and many other parts of Europe, and flowers in July.

C. Bauhine calls it *Brassica sylvestris foliis circa radicem chioracis*. Others, *Turrilis major*.

The seeds of the *turrilis* are accounted excellent in the rheumatism; and in some places are a common family-medicine for that purpose: but they are not known in the shops.

G E N U S XVI.

HEDGE MUSTARD.

E R Y S I M U M.

THE flower is composed of four petals, regularly disposed cross-ways; these are oblong, blunt at the end, and have narrow, small bottoms, which stand erect, and are of the length of the cup: the cup is formed of four little, oblong leaves, which are coloured, and converge at their points, and the whole falls with the flower: the seed-vessel is very long, and very slender, and the seeds are small and round.

Linnaeus places this among the *tetradynamia filiquosa*, four of the six threads in the flower being longer than the other two, and the seed-vessel being a regular pod.

This author introduces into this genus some plants properly belonging to the others of the same class: but a trip of this kind is the more pardonable, because there is no class in which the genera are so very lightly distinguished one from another.

As there is no single word to denote this genus in the English language, it will be advisable to use the Latin name *Erysimum*; the more, as the plant commonly known under the name of *hedge mustard* in the shops, properly belongs, as Mr. Ray first observed, to another genus. This has been already described and figured in its place.

DIVISION I. BRITISH SPECIES.

1. Treacle Wormseed. Pl. 36. 15

Erysimum angustifolium camelina dictum.

The root is long, white, woody, and furnished with many fibres.

The stalks are round, firm, upright, and of a pale green, or purplish: they are about two feet and a half high, and not much branched.

The leaves are long and narrow: they stand in great number upon the stalks, and in an irregular manner. They have no footstalks: they are narrow at the base, and broadest about the middle: their colour is a pale green, and they have a bitter taste, as has also the pith within the stalk.

The flowers grow in small tufts at the tops of the stalks, and they are small and yellow.

The

The seed-vessels are long, slender, and squared: they stand in a kind of spikes along the upper part of the stalk, when the plant has been some time in flower.

The seeds are numerous, small, oblong, and yellow, and are very bitter.

It is frequent in the fen countries, as the Isle of Ely, and flowers in July.

C. Bauhine calls it *Myagrum filiqua longa*. Others, *Camelina*.

The seeds of this plant are accounted excellent against worms, and are much used by the country-people; but they are not known in the shops.

They are also given against obstructions of the viscera, and in the rheumatism and jaundice, with success: they operate moderately by urine. This medicine deserves to be more known.

2. Broad-leaved smooth Erysimum.

Erysimum latifolium glabrum. Pl. 36. 16

The root is long, white, slender, and furnished with many fibres.

The first leaves are numerous, large, and very deeply divided: they are placed on slender footstalks, and are deeply cut, almost to the rib, into a number of segments, in somewhat like a pinnated form.

The stalk is round, thick, upright, not much branched, and a foot and half high.

The leaves on it resemble those from the root, being divided very deep at the sides into four or five pairs of segments: they are perfectly smooth, and of a yellowish green.

The flowers are small and yellow: they stand in tufts at the tops of the stalks, and are but of short continuance.

The seed-vessels are long and slender, and they stand at a good distance from the stalk: the seeds are small brown.

It is common in waste places, and flowers in June.

C. Bauhine calls it *Erysimum latifolium majus glabrum*. Others, *Erysimum latifolium Neapolitanum*. This name comes from Parkinson, and is ill adapted to so common an English plant.

3. Flixweed. Pl. 36. 17

Erysimum foliis tenuissime divisis sophia dictum.

The root is long, slender, and furnished with many fibres.

The first leaves are large, and very beautifully formed: they are pinnated, and the pinnae or divisions are divided, and sometimes subdivided again; so that the leaf is composed of innumerable very fine and delicate parts.

The stalk is round, firm, upright, of a pale green, and a yard high.

It is very much branched, and thick set in all parts with leaves.

These stand irregularly, and resemble those from the root: they are very finely divided, and of a deep, but not unpleasing green.

The flowers are small and yellow, and they stand in little tufts at the tops of all the branches.

The seed-vessels are very slender, long, and green: the seeds are numerous, and extremely small.

It is common in waste places, and flowers in July.

C. Bauhine calls it *Nasturtium sylvestre tenuissime divisum*. Others, *Sophia chirurgorum*. The common people, *Flixweed*, a corrupt way of speaking *Fluxweed*.

This name has been given it for its virtues, which ought to make it more regarded.

The seeds are astringent, and the juice more so: either of these, or a decoction of the plant, stop fluxes and hæmorrhages in a very safe and happy manner.

DIVISION II. FOREIGN SPECIES.

1. Arabian Mustard.

Erysimum draba lutea dictum. Pl. 36. 10

The root is long, thick, white, and furnished with many fibres.

The first leaves rise in a small tuft, and are supported on long footstalks: they are oblong, and considerably broad, indented at the edges, and sharp-pointed.

The stalk is round, upright, firm, and not much branched: its usual height is two feet, but it sometimes rises to twice that, or more.

The leaves stand irregularly on it, and are like those from the root: they have short footstalks, and are oblong, serrated, sharp-pointed, and of a dusky green.

The flowers stand at the tops of the stalks in a kind of spikes, and they are of more duration than most of the others: they are succeeded by long and very slender pods, in which are longish yellow seeds.

It is a native of Italy, and flowers in July.

C. Bauhine calls it *Draba lutea filiquis stridulis*.

The whole plant has a fiery taste, but the root most of all.

It is an excellent medicine in rheumatic complaints, and in obstructions of the viscera.

2. Great-flowered Erysimum.

Erysimum flore aureo magno. Pl. 36. 19

The root is long, thick, and furnished with many fibres.

The first leaves are numerous, long, large, and very beautifully divided: they spread themselves upon the ground in a circular manner, and they are sinuated very deeply in the pinnated form; each leaf is formed of five or six pairs of these segments, united by a rim of a leaf joining the rib; and they are of an irregularly-triangular figure.

The stalk is upright, firm, round, not much branched, and two feet high.

The leaves on it are long, narrow, and like those of the root, but with fewer divisions.

The flowers are large, and of a fine yellow.

The pods are long and slender, and the seeds small, numerous, and round.

It

It is a native of Italy, and flowers in June.

C. Bauhine calls it *Eruca latifolia*.

All these plants agree in their general quali-

ties as well as external form. They are good in obstructions of the viscera, and in scorbutic disorders; but they have not been sufficiently regarded in the practice of physic.

SERIES II.

FOREIGN GENERA.

Those of which there is no species naturally wild in this country.

GENUS I.

TOOTHWORT.

DENTARIA.

THE flower is composed of four petals, regularly disposed cross-ways: they are broad at the ends, and have small bottoms of the length of the cup. The cup is formed of four little leaves; they are oval, blunt, and converge at the points, and the whole falls with the flower: the seed-vessel is long, and of a rounded form, and contains two cells; the dividing membrane is a little longer than the sides of the pod: the seeds are numerous and oval.

Linnaeus places this among the *tetradynamia filiquosa*; four of the six threads in the flower being longer than the other two, and the seed-vessel being a regular pod.

Some of the plants of this genus produce a kind of *soboles*, or fruitful lumps, in the bosoms of the leaves; but this is not universal.

1. Trifoliate Toothwort.

Dentaria triphyllus. Pl. 37.1

The root is thick, of an irregular figure, and lies obliquely under the surface. When young it is white, but when older it is black on the outside; so that the common appearance is its being white in some parts, and black in others: it is composed in an irregular manner of several distinct parts oddly connected together.

From the different parts of this root rise several footstalks, on each of which are placed three leaves: these are broad, short, and of a deep green, serrated at the edges, pointed at the ends, and each has its separate pedicle, by which it is fixed to the common footstalk.

In other parts of the root lie the rudiments of the stalk, which therefore rise in separate places.

These are round, slender, of a pale green, and about a foot high.

Toward the middle of the stalk, or somewhat nearer the top, there stand three footstalks, each sustaining three leaves: these are long, narrow, sharp-pointed, and serrated at the edges.

The flowers are moderately large: they have long and slender pedicles, so that they commonly hang drooping; and their colour is a greenish white.

The seed-vessels are long and slender, and the seeds are numerous and small.

It is a native of Italy, and other warmer parts of Europe, and flowers in July.

C. Bauhine calls it *Dentaria triphyllus*. Columna, *Cerastium Plinii*. Others in general, *Dentaria trifoliata*, *Three-leaved toothwort*.

2. Seven-leaved Toothwort.

Dentaria heptaphylla. Pl. 37.2

The root is placed obliquely in the ground, and is composed of a number of odd shaped irregular parts, fixed in a rude manner to one another.

The first leaves are large, and very beautiful: they stand on long, slender footstalks, of a greenish white, or of a redish colour; and are of a pinnated form, each consisting of three pairs of pinnae, with an odd leaf at the end.

These are oblong, narrow, sharp-pointed, and serrated at the edges.

The stalk is round, slender, upright, weak, and a foot high.

The leaves grow irregularly on these, and in an uncertain form: the lower part of the stalk is naked, and that usually half way up: at this height begin the leaves, three or four of which stand at some small distances over one another; and are of the pinnated form, like those from the root, but having fewer pinnae: above these stand several simple, oblong, and narrow leaves, and at the top the flowers in a small spike.

These are large, and of a beautiful pale redish hue.

The seed-vessel is long and slender, and the seeds are numerous and round.

In this species there are frequently little tubercles at the bosoms of the leaves, like those of the bulbiferous saxifrage, which falling take root, and become new plants.

It is common in all the southern parts of Europe in shady situations at the foot of hills. It has been found in some places in England thriving

thriving very well among bushes, but it is not a native. The dead stalks have been thrown out of some adjacent garden, and the tubercles from the leaves have furnished these plants.

C. Bauhine calls it *Dentaria heptaphyllus baccifera*, *Berry-bearing seven leaved toothwort*. He gives the name of *berries* to those tubercles just named; but they are not properly such. A berry is a regular fruit succeeding a flower: these are a kind of suckers; no flower has stood in the place.

3. Five-leaved Toothwort.

Dentaria pentaphylla. Pl. 37.3

The root is long, thick, of an irregular form, and lies obliquely at a small depth under the surface: the first leaves are supported on long, slender footstalks: they are placed five on each; and they are not disposed in the pinnated manner, but spread out like fingers. They are oblong, narrow, sharp-pointed, serrated at the edges, and of a strong and pleasant green.

The stalk is slender, upright, green or redish, and a foot high.

The leaves stand irregularly, and are perfectly like those from the root, five placed on each footstalk, narrow, long, and serrated.

The flowers are large, and of a beautiful pale purple; in shape and colour they very much resemble those of the common heesperis, which our gardeners call single rocket.

The seed-vessel is long and slender, and the seeds are numerous, small, and round.

It is a native of Italy, and flowers in August.

C. Bauhine calls it *Dentaria pentaphyllus*, and most others copy that name. When this grows in loose ground very much shaded, the root becomes more scaly, and the leaves are of a paler green, and are soft to the touch. In this state it has been described by Clusius under the name of *Dentaria pentaphyllus altera*, as if a distinct species; but these errors the student must carefully avoid.

4. Single-leaved Toothwort.

Dentaria foliis simplicibus. Pl. 37.4

The root is thick, and of an irregular figure, and runs obliquely under the surface.

The first leaves are oblong, narrow, undivided, and of a pale green: they have short footstalks, and rise in little tufts.

The stalk is round, slender, upright, and of a pale green: it is not at all branched, and is a foot and a half high.

The leaves are placed alternately on it from the bottom to the top, and they resemble those from the root: they have short footstalks; and they are long, narrow, sharp-pointed, a little undulated at the edges, and of a pale green.

The flowers stand in a short spike at the top of the stalk; and as the top usually droops, they commonly hang all on one side: they are large and white, with a fainter or deeper blush of purple.

The seed-vessel is long and slender, and the seeds are large and round.

It is common in the Harts forest in Germany, and flowers in August.

C. Bauhine calls it *Dentaria baccifera foliis ptarmicæ*.

There are frequently tubercles like those of the seven-leaved kind in the bosoms of the leaves of this species; and when they are numerous, and swell kindly, the flower often falls without any succeeding seed-vessel, Nature contenting herself with this method of encreasing and continuing the species.

The *seven-leaved toothwort* is accounted a good vulnerary; but this seems an opinion not well founded. The taste is acrid, and almost caustic. Probably a confusion of names between this plant, and the *coral toothwort* has occasioned the opinion.

Linnaeus accounts the *single-leaved toothwort* to be only a variety of the seven-leaved kind, some of the leaves toward the top of which are often single: but the latest observations shew the leaves of this are single from the root; so that it is altogether a distinct species. And indeed the whole aspect of the plant speaks it. There has been also much confusion about the bulbiferous kind, some describing one species, and others another for it; but this is owing to the uncertainty of the bulbs or tubercles appearing, for they are not constant in all the plants.

GENUS II.

ARABIS.

THE flower is composed of four petals, regularly disposed cross-ways: they are of an oval, ob-tuse form, and have small bottoms of the length of the cup. The cup is composed of four little leaves; two of these are very narrow, and stand erect; the other two are broader, and thick at the base, and of an oval shape, but sharp-pointed and hollow. The seed-vessel is very long, flattened, and swelling where the seeds lie: these are numerous, and of a rounded form, but somewhat flattened.

Linnaeus places this among the *tetradynamia filiquosa*; the threads in the flower being six, of which four are longer than the other two, and the seed-vessel being a regular pod. But he introduces among the plants rightly belonging to it some that more properly claim their place in other genera. We have endeavoured here to place them as Nature directs.

1. Broad-leaved Arabis.

Arabis latiore folio. May 5

The root is long, slender, and creeping.

The stalks are numerous, round, upright, hairy, and a foot high: they are of a pale colour, and not much branched.

The leaves are numerous, and are placed irregularly: they are of a shape approaching to oval, broadest at the base, where they furround the stalk, and narrower to the extremity, where they terminate in a sharp point: they are soft to the touch, of a pale green, and serrated at the edges.

The flowers stand at the tops of the branches in little tufts, and they are small and white.

The seed-vessels are long and slender: the seeds are large and brown.

It is a native of Germany, and other parts of Europe, and thrives best on shaded hills. It assumes various shapes, according to the favourable qualities of the soil and shelter, sometimes lying for the most part on the ground, and sometimes rising perfectly erect. This, and its other variations from the same cause, have led some to figure and describe it two or three times over un-

der various names adapted to the condition of its growth.

6. Long-leaved Arabis.

Arabis longiore folio. May 6

The root is long, slender, white, and furnished with numerous fibres.

The first leaves rise in a thick tuft, and are supported on short footstalks: they are long, moderately broad, sharp-pointed, narrowest at the base, and very irregularly indented about the edges.

The stalk is round, upright, firm, and not much branched.

The leaves on it in all respects resemble those from the root, but that they are smaller: they stand irregularly: they are of a pale green, and they have short footstalks.

The flowers stand at the top in a small tuft, and are large, and of a bright yellow.

The seed-vessels are long, flattened, and full of roundish seeds.

It is a native of many parts of North America, and flowers in July.

Plukenet calls it *Eruca bellidis majoris folio*.

G E N U S III.

W O A D.

I S A T I S.

THE flower is composed of four petals opening regularly cross-ways; they are oblong, oval, obtuse, and have very narrow bottoms: the cup is composed of four little oval leaves, which spread open; it is coloured, and falls entire with the flower: the seed-vessel is oblong, blunt at the end, compressed, and two-edged, and is composed of two hollow sides: the seed is single, and of an oval figure, and lies in the centre of the pod.

From the shortness of the pod in this genus some might be for referring it to the siliculose plants, but that is not their essential character, as we shall shew hereafter. This is properly and truly of the siliquose kind.

Linnaeus places it among the *tetradynamia filiquosa*, four of the six threads in the flower being longer than the other two, and the seed-vessel, as we have observed, notwithstanding its shortness, a regular pod.

Common Woad.

Isatis vulgaris. May 7

The root is long, thick, whitish, and furnished with many fibres.

The first leaves are large, oblong, and broad: they lie spread upon the ground, and they are of a bluish green colour, and firm substance.

The stalk rises in the midst of the tuft, and is round, woody, firm, of a greyish colour, and four feet high.

The leaves stand thick and irregularly on it, and are large and oblong: they are broad at the base, and narrower all the way to the point; and they are of the same fleshy substance, and bluish green colour.

The flowers stand upon numerous, slender branches, into which the stalk divides at its top; and they are small and yellow.

The seed-vessels are oblong, and the seed is single and large.

It is a native of the shores of the Baltic; but is cultivated in fields with us, and thrives very happily. It flowers in August.

C. Bauhine calls it *Isatis latifolia sativa*. This author, and others, describe also a narrower-leaved woad, which they call the *wild kind*, as if a distinct species; but there is no other difference between these two plants than what culture gives. The *wild woad*, brought into a cultivated land, will have as large and broad leaves as the other, and has arisen from scattered seeds of the manured kind upon less favourable soils.

The use of woad is for dyeing of woollen cloth. Its natural colour is blue; but it is also the basis of several others: for this service a vast quantity is annually raised in many parts of England.

G E N U S IV.

S I N A P I S T R U M.

THE flower is composed of four petals, very singularly arranged; they do not expand themselves cross-ways, as the others of this class; but all incline upwards, and spread out from one another: two of these petals are smaller than the others. The cup is formed of four little leaves spread open, the lower leaf separated as it were from the others; and there are three little glandules at the bases of the three other leaves of the cup. The seed-vessel is long and rounded, and is composed of two sides, but contains only a single cell: the seeds are numerous and round.

Linnaeus places this among the *tetradynamia filiquosa*, but with some repugnance to the characters of that class.

He says, in the *tetradynamia* four threads are longer than the rest, and he gives them here as placed in the common manner: but he is obliged to acknowledge, that, in one species of this genus, there are twelve threads of equal length, so that the character of *tetradynamia* is wanting; and in another the threads grow upon the style: so that the plant, according to his distinctions, belongs to the *gynandria*; a particular and altogether distinct class.

This shews that no proper foundation of classes is to be found in these small parts of flowers; for himself is obliged to arrange the two plants we here speak of as species of the same genus, though, according to his system, they belong to two utterly distinct classes.

This author also takes away the established name of the class, and calls it *cleome*. We are no friends to these innovations, and have kept things here in their old channel.

Red, five-leaved Sinapisrum. May 8

Sinapisrum pentaphyllum flore rubente.

The root is composed of many slender fibres.

The first leaves are numerous, and have long and weak footstalks: they stand five together on each of these, and are disposed in a fingered manner: they are narrow, sharp-pointed, and of a pale green.

The stalk is round, weak, redish, and two feet high.

The leaves on it have long footstalks, in the same manner as those from the root; and they also stand five together; and are oblong, narrow, and of a faint green.

The flowers grow in a long spike, with the pods at the top of the stalks: they are large, and of a beautiful pale red.

The seed-vessel is long and slender, and easily bursts with a touch, its valves or sides being very weakly joined; the seeds are numerous, large, and roundish.

It is a native of Africa, and flowers in June.

C. Bauhine calls it *Quinquefolium lupini folio*. Others, *Sinapisrum pentaphyllum*.

The seeds are accounted a sovereign remedy in obstructions of the urinary passages; but they are in this respect confined to the natural place of the plant's growth. We have it in gardens; but its virtues are not regarded.

The END of the FIFTEENTH CLASS.



BRITISH HERBAL.

CLASS XVI.

Plants whose flower is composed of FOUR PETALS, placed cross-ways, and whose seed-vessel is a SHORT POD or SHALE.

THESE are the plants authors call *filiculose*. They agree in all respects with those of the preceding class; except in this, of the shape and structure of the fruit, which is always truly distinct, and is an essential classical character. The *filicula*, or *shale*, is of a rounded or slightly angulated form, and is terminated by a long point which was in the flower, the style. It is always composed of two sides or valves, and splits open lengthwise along their edges. Linnaeus places this class among the *tetradynamia*, distinguishing it after the manner of most others from the *siliquose* plants, or those whose seed-vessel is a regular pod, only by a subordinate arrangement. The difference, however, is sufficient very well to support the disposing them in separate classes; and hence will arise less confusion. The young botanist will always find his progress in the science the easier, the greater is the number of distinctions, provided they have just foundation in nature. His perplexity always arises from the great number under one general head.

SERIES I.

Natives of BRITAIN.

Those of which one or more species are found naturally wild in this country.

GENUS I.

SEA COLEWORT.

C R A M B E.

THE flower is composed of four petals, which are placed regularly in a cross direction; these are of an oval figure, and have very slender bottoms: the cup is formed of four little leaves, of an oblong, oval figure, and falls with the flower: the seed-vessel is of an irregular figure, roundish, but somewhat oblong, and raised into four ridges, which terminate in one or more points. This singular genus seems intended by nature to connect the *siliquose* and the *filiculose* kinds, or those with long and short pods, whose flowers are alike: accordingly authors have been divided in opinion under which of these two heads to arrange it. Ray places it among the *filiculose*, and Linnaeus among the *siliquose*: but the structure of the pod, when carefully examined, determines for the first named distribution. Linnaeus ranges it among the *tetradynamia*; four of the six threads in its flower being longer than the other two, as in the rest of this, and the preceding class. As we have no proper English name for the genus, it will be more proper to use the name *crambe*. Linnaeus

Linnaeus explodes this, and gives to the genus that of *bunias*: but this will create in the mind of the young student a double confusion, as it sets aside a received name, and as this now appropriated by Linnaeus has been long used by authors in another sense, expressing a plant of the former class, of the *turnep* or *navew* kind. He also separates some of the species under the name of *crambe*, because the threads are split at the top; but these are too slight accidents to characterise a genus.

DIVISION I. BRITISH SPECIES.

1. Smooth Crambe. *Nº 9*

Crambe maritima brassica foliis.

The root is long, thick, and divided into many parts.

The first leaves are very large, and numerous: they are oblong, very broad, deeply and irregularly sinuated at the edges; of a thick, fleshy substance, perfectly smooth, and of a bluish green: the ribs and veins are often purplish.

The stalk rises in the centre of these, and is round, thick, whitish, upright, and branched: it grows to two feet and a half in height.

The leaves on this are few: those toward the lower part resemble such as rise from the root; but near the top they are small, of an oval shape, pointed, and not at all waved at the edges.

The flowers stand at the tops of the stalks and branches, and are small and white.

The seed-vessels are short and roundish, and in each is contained a single large seed.

It is not uncommon on our sea-coasts, and flowers in June.

C. Bauhine calls it *Brassica maritima monosperma*. In English it is called the *Sea cole*, or *Sea-cabbage*.

The people about the sea-coasts boil it in the way of favours and cabbages, and the like; and it is very well-tasted, and perfectly wholesome. This has led some to take it into their gardens, and it is preferred to most other kinds at table. The root creeps under the surface, and the leaves are green all winter.

2. Sea-Rocket. *Nº 10*

Crambe foliis asperis eruca marina dista.

The root is long, slender, and furnished with numerous fibres.

The first leaves are few and small: they are narrow, oblong, and a little indented; usually there are about two notches on each side: these are of a yellowish green colour, and quickly fade.

The stalk is round, weak, of a pale green, and smooth, and is very much branched.

The leaves on this are numerous, broad, oblong, and very deeply cut at the edges, in a manner somewhat resembling the pinnated division: they are of a pale green colour, and of a fleshy substance.

The flowers stand at the tops of stalks and branches; and are large, and of a purplish blue.

The seed-vessels are short, thick, and two-edged: the seeds are large and brown.

It is a native of our sea-coasts, and flowers in June.

C. Bauhine calls it *Eruca maritima Italica siliqua hastie cuspidi simili*. Others call it *Eruca marina*, and *Cakile*.

The people about the coasts take the seeds in rheumatic cases, and, as is reported, with success.

DIVISION II. FOREIGN SPECIES.

Rough-podded Crambe.

Crambe filiculis bicristatis. Nº 11

The root is thick, slender, and furnished with many fibres.

The first leaves are numerous, oblong, and deeply indented on the edges in a pinnated form: each leaf has four or five pairs of segments thus divided, and is terminated by an oblong piece; and these are all serrated and pointed.

The stalk is round, upright, weak, and not much branched: the colour is usually a pale green, sometimes redish, and it is hairy.

The leaves on it are not divided in the manner of those at the root, but are oblong, and serrated at the edges.

The flowers stand at the tops of the stalks and branches, and are small and yellow.

The seed-vessel is short, and of a rough, pointed,

and crested form: the seeds are oval and brown.

It is common in the south of France, and flowers in July.

C. Bauhine calls it *Eruca monspeliaca siliqua quadrangula ecbinata*. Van Royen, *Bunias*; and from this has arisen Linnaeus's use of that word as a name for the whole genus.

As we do not allow the *crambe* to be separated from this otherwise than as species of the same genus, the division of the threads in the flower not being a mark of greater distinction, we retain that name to the whole genus.

Linnaeus authorises in other places the reducing to the same genus plants that have these little differences in their minute parts. We have given an instance of it in the *sinapisfrum*, even though it shakes his whole system: here there would have been less objection to the same conduct.

GENUS II.

LUNAR VIOLET.

LUNARIA.

THE flower is composed of four petals displayed cross-ways; they are large, obtuse, undivided, and have slender bottoms of the length of the cup. The cup is formed of four leaves, of an oval or oblong figure, and convergent at their tops; there are two of them thick at the base: the seed-vessel is of an elliptic or long-round figure, flattened, erect, and very large: it is terminated by a long point, and is formed of two valves, and divided into two cells or partitions by a membrane, which runs parallel with the sides.

Linnaeus places this among the *tetradynamia filiculosa*; the threads of the flower being six, four of which are longer than the other two, and the seed-vessel a proper filicula or shale.

Others have arranged it among the filiquose plants, or those whose seed-vessel is a regular pod; but erroneously. The distinctions in these cases are small, but they are sufficient: the filiquose and filiculose plants of several genera approach very nearly to one another, but a strict examination of the seed-vessel will always shew without error to which class any plant truly belongs.

DIVISION I. BRITISH SPECIES.

Lunar Violet, with a wreathen pod.

Lunaria filiqua intorta.

The root is composed of a few threads.

The first leaves are oblong, somewhat broad, and of a greyish green: they are small, and they grow in a thick tuft, partly rising up, and partly spread upon the ground.

The stalk rises in the midst of this tuft; and is round, upright, slender, of a greyish colour, and eight inches high.

The leaves on it are placed irregularly; and they are oblong, broad, and of a bluish green.

The flowers stand at the tops of the stalks, and are small and white.

The seed-vessel is oblong and twisted; and the seeds are kidney-shaped, and large.

It is found on our northern mountains, and flowers in April.

Peiver calls it *Lunaria contorta major*. Plukenet, *Lecium frue lunaria vasculo sublongo intorta*. Merret, *Paronychia Gnaphalii facie*.

This is mentioned a second time, though with uncertainty, in the synopsis of British plants, under the name of *Paronychia similis*, sed major perennis alpina repens. The author supposed it might be the same with the former; and it has been found to be so by those who have seen it in the places there mentioned with the seed-vessels ripe.

DIVISION II. FOREIGN SPECIES.

1. Honefty.

Lunaria filiculis subrotundis. *MC. 37. 12*

The root is a tuft of thick fibres.

The first leaves are few, and quickly fade; they are of a heart-fashioned shape, and of an obscure, dusky, green colour.

The stalk is round, upright, firm, branched, and three feet high.

The leaves on this are placed at distances; and they are large and heart-fashioned, broad, and indented at the base, serrated at the edges, and sharp-pointed: their colour is a dusky green, and they are lightly hairy.

The flowers are very numerous, and stand toward the extremities, and at the tops of the branches: they are long, and of a beautiful purple.

The seed-vessel is very broad, and extremely thin: it is rounded, and terminated by a slender point, and when ripe has a silky or fatty appearance; whence the plant has been called the *fatty-plant*, and *fatty-flower*: the seeds are large, but not numerous.

It is a native of Germany, and flowers in May.

C. Bauhine calls it *Lunaria major filiqua rotundiore*. Others, *Viola lunaris vulgaris*, and *Bulbonach*. Its proper English name is the *Round-podded lunar violet*.

2. Lunar violet, with oblong pods.

Lunaria filiquis oblongis. *MC. 37. 10*

The root is composed of numerous, thick fibres, and remains the winter; whereas the other is an annual, dying as soon as the seed is ripened.

The first leaves of this are very large: they are short and broad, indented at the base, serrated at the edges, and pointed at the ends.

The stalks are numerous, round, green, a little hairy, and three feet high.

The leaves on them resemble those from the root: they are short, and heart-fashioned, sharply indented, and pointed; and they stand on slender, hairy footstalks.

The flowers are placed at the tops of the stalks and branches; and are of a pale purple, large, and very handsome.

The seed-vessels are thin and flat, like those of the common kind; but they are oblong.

The seeds are few, large, and brown.

It is a native of Spain, and flowers in June.

C. Bauhine calls it *Viola lunaria major filiqua oblonga*.

The virtues of these plants are unknown; nor does it appear, from any manifest qualities, that they are worth regarding.

GENUS

GENUS III.

WHITLOW-GRASS.

PARONYCHIA.

THE flower is composed of four petals, which open cross-ways: they are of an oblong figure, and have very slender bottoms. The cup is formed of four little, hollow, oval leaves, which fall with the flower. The seed-vessel is oblong, flattened, and has so small a point at the extremity, that it appears almost destitute of any: it is composed of two valves, and divided into two cells by a membrane that runs parallel with them. The seeds are numerous and small.

Linnaeus places this among the *tetradynamia filiculosa*; the threads in the flower being four longer and two shorter, and the seed-vessel a regular filicula or shale.

This author abolishes the received name of the plants of this genus, and joins them with some others under the term *draba*.

DIVISION I. BRITISH SPECIES.

1. Common Whitlow-grass.

Paronychia vulgaris. *MC. 37. 14*

The root is long, slender, and hung with a multitude of little fibres.

The leaves rise in a thick tuft, and are small, and of a dusky green: they are oblong and obtuse, and not at all indented at the edges.

The stalks rise in the center of this tuft of leaves, many together: they are upright, slender, yellowish, and three or four inches high.

There are no leaves on these, but usually toward the tops a great number of flowers and seed-vessels.

The flowers are small and white.

The seed-vessels are oval, flat, and yellowish; and the seeds are numerous, and very small.

It is common on walls and the tops of houses, and flowers very early in spring.

C. Bauhine calls it *Bursa pastoris minor loculo oblongo*. Others, *Paronychia vulgaris*.

People lay the leaves bruised to whitlows on their fingers; but a common pulice would answer their purpose better; or these leaves, if used, should be mixed with it.

The leaves of this plant are sometimes slightly indented, and some have described it in this case under the name of a distinct species; but it is

one of those accidental varieties which will rise from the same seeds with the other.

2. Branched Whitlow-grass.

Paronychia ramosa bifida. *MC. 37. 15*

The root is long, slender, and furnished with several fibres.

The first leaves rise in a thick tuft; and are oblong, broad, of a dusky green, and hairy: they have no footstalks, and they are sharply serrated at the edges, and pointed at the ends.

The stalk rises in the center, and is round, upright, very much branched, hairy, and ten inches high.

The leaves are placed irregularly, and are broad and short: they are largest at the base, narrower all the way to the point, and serrated on the edges.

The flowers are small and white: they stand in little tufts at the tops of all the branches.

The seed-vessels are of an oval form, small, flat, and yellowish; and, when the plant has flowered some little time, they stand in long spikes beneath the flowers: the seeds are small and brown.

C. Bauhine calls this *Bursa pastoris major loculo oblongo*. Others, *Tblaspi foliis veronicae*.

It is found on the hilly parts of our northern counties, and flowers in April.

DIVISION II. FOREIGN SPECIES.

1. Yellow Alpine Whitlow-grass.

Paronychia lutea Alpina. *MC. 37. 16*

The root is thick, long, divided, and furnished with numerous fibres.

The leaves rise from it in a very thick tuft, and stand extremely close in vast numbers: they are very small, short, and sharp-pointed: they are broad at the base, and not at all indented.

The stalks are numerous, weak, round, slender, and naked; and they are about three inches high.

The flowers stand at the tops, six or eight on each, and they have long and very slender footstalks: they are small, and of a bright yellow.

The seed-vessels are oval and small, and the seeds are very minute and brown.

It is a native of the Alps, and flowers in April. C. Bauhine calls it *Sedum Alpinum luteum*; but the form of the seed-vessel shews the error of that name. Morison calls it *Bursa pastoris Alpina lutea rosea*. Columna, *Leucium luteum aizoides montanum*. Some years the season not favouring, it is very minute; but usually it is of the size and form described here.

2. Branched yellow Whitlow-grass.

Paronychia ramosa flore aureo. *MC. 37. 17*

The root is long, slender, and furnished with many fibres.

The leaves rise in a tuft without footstalks; and they are broad, oblong, and of a pale green, very hairy, and lightly serrated at the edges.

The stalk is round, upright, hairy, whitish, and eight inches high.

The leaves on this are short and broad, of a whitish green, very hairy, and soft to the touch.

The flowers stand in little tufts at the tops of the stalk and branches; and they are moderately large, and of a fine gold yellow.

The feed-vessels are oval and small, and they have a little white point: the seeds are small and brown.

It is frequent in Germany, and flowers in May.

G. Bauhine calls it *Bursa pastoris Alpina bifurcata*. Columna, *Draba minima muralis*.

G E N U S IV.

SHEPHERDS PURSE.

BURSA PASTORIS.

THE flower is composed of four petals, which display themselves cross-ways; they are small, of an oval figure, and have very narrow bottoms: the cup is formed of four little, hollow leaves, which fall with the flower: the feed-vessel is flat, large, and heart-fashioned, narrow at the base, broad, and indented at the extremity, and full of small seeds.

Linnaeus ranges it among the *tetradynamia filiculosa*; the flower having four longer and two shorter threads, and the feed-vessel being a filicula. He does not keep it as a distinct genus, but makes it a species of *ibispi*.

The feed-vessels of the *ibispi* are indeed parted by a nick at the end, but they have not the peculiar form of those in this plant; which, from their resemblance of a pouch or wallet, have obtained the herb a name peculiar to itself; and preserved it through most writers.

There is but one known species of *shepherds purse*, and that is a native of Britain. Authors have described several varieties of it as distinct species; but they all rise from the same seed.

Common Shepherds Purse.

Bursa pastoris vulgaris. *M37.10*

The root is long, slender, white, and furnished with many fibres.

The first leaves are numerous, and they spread themselves in a circular manner on the ground: they are long, narrow, and deeply indented along the edges in a pinnated manner: their colour is a dusky green.

This is their usual form: but when the plant has little nourishment, they are sometimes scarce at all divided; and, on the other hand, when it grows rank, they are sinuated more frequently, and down to the rib: these are the two conditions in which the plant has been described as if of different species; in the one state it has been called *shepherds purse with undivided leaves*, and in the other *bucks-horn-leaved shepherds purse*; but the species is the same in all, the degree of nourishment only making the difference.

The stalks rise several together in the center of the tuft of leaves; and are round, tough, upright, and branched: their colour is a pale green, and they are a foot or more in height: the leaves on these are long and narrow; the lower ones are deeply serrated, the upper ones scarce at all; and they surround the stalk at the base.

The flowers are small and white, and the feed-

vessels are broad and flat: the seeds are numerous, and very minute.

It is common in waste places, and flowers all summer.

C. Bauhine calls it *Bursa pastoris major folio sinuato*. Others, *Bursa pastoris vulgaris*.

That author, and many others, make the *whitlow grass*, a species of this genus; but very improperly, the form of the feed-vessel being a most obvious mark of their distinction.

Shepherds purse is an instance of a very great and important truth, that Providence has made the most useful things most common; and that men therefore neglect them. Few plants have greater virtues than this, which is yet utterly disregarded.

A decoction of the dried herb is a gentle and safe astringent, good in fevers, attended with diarrhoeas, and inferior to few things against an habitual purging.

The juice of the leaves is cooling and astringent: two spoonfuls of it, with one of red wine, are excellent against overflowings of the menfes.

A strong decoction of the fresh plant is good against loosenesses attended with bloody stools, and against spitting of blood. Such and so useful is this common plant, trampled every where under foot as if possessed of no qualities.

G E N U S V.

HORSE RADISH.

RAPHANUS RUSTICANUS.

THIS, like the shepherds purse, is a plant distinguished by Nature from all others, but which the modern writers of botany have, as in that instance, joined with those to which it has no true alliance.

The flower is composed of four small petals, which display themselves cross-ways; these are of an inverted

inverted oval figure, and have very small bottoms within the cup. The cup is composed of four hollow, oval, little leaves, which stand gaping, and fall with the flower. The feed-vessel is short, somewhat compressed, blunt at the end, and terminated by a small point: the seeds are few and small, and the leaves are very large and firm.

Linnaeus places this among the *tetradynamia filiculosa*; the flower having four longer and two shorter threads, and the feed-vessel being a single regular filicula. He joins it with the scurvygrafs, taking away its original and more usually received name. The shortness of the point at the feed-vessel is a distinction of the smaller kind; yet it is a very certain and invariable character: but Nature has placed a much greater and more obvious mark in the form and external appearance of the whole plant.

The lepidium is much more nearly allied to the *rapanus rusticanus* than the scurvygrafs is in nature; but even that is absolutely distinct.

There is but one known species of *horse radish*, though it varies oddly in the leaves; and that is a native of Britain.

Common Horse Radish.

Rapanus rusticanus vulgaris. *M30.1*

The root is long, thick, and white, of an acrid taste, and of many years continuance in the ground.

The leaves are numerous, and extremely large: they are long, moderately broad, and of a fresh green. Naturally they are entire, or but slightly and irregularly dented at the edges; but sometimes they are cut very deep into numerous pinnated segments.

The stalk is round, upright, firm, and two feet and a half high.

The leaves on this are oblong, narrow, and indented, and are of a fresher green than those from the root.

The flowers stand at the tops of the stalks, and are small and white.

The feed-vessel is also small and short, and the seeds are few and small.

It is common wild in the north of England, and we see it in uncultivated grounds, frequently about

London, and elsewhere in the neighbourhood of towns. But it has in these places probably risen from some of the roots thrown out of the houses or gardens. In Cumberland, and some parts of Yorkshire, it is abundant in places remote from houses. It flowers in June.

C. Bauhine calls it *Rapanus rusticanus*; and most others copy that name without alteration.

It is an excellent medicine in rheumatic cafes, and in all obstructions of the viscera. There is no way of taking it so good as eating of the scraped root in large quantities at table.

It works powerfully by urine, and brings away small stones and gravel; at the same time it strengthens the stomach, and assists digestion. It stands greatly recommended also against scorbutic complaints.

Two spoonfuls of the juice will operate as a vomit; but it does this roughly and disagreeably.

G E N U S VI.

DITTANDER.

LEPIDIUM.

THE flower is composed of four little, oval petals, which are disposed regularly in a cross direction, and have very narrow bottoms: the cup is formed of four little, pointed, gaping leaves, which fall when the flower decays: the feed-vessel is short, broad, and thick, with a very slight depression at the end, and a very slender point annexed to it, which has been the style of the flower: the seeds are numerous, small, and brown.

Linnaeus places this among the *tetradynamia filiculosa*; the flower having four longer and two shorter threads, and the feed-vessel being a regular filicula.

He takes away the established name of one plant of this genus, not allowing it to belong to it, but accounting it a species of scurvygrafs; this is the narrow-leaved kind: and the other he joins with nasturtium, calling them by that name. This tends to create confusion. There is enough distinction both from the scurvygrafs and the *horse radish* in the general form of the plants; but, beside that, we have shewn there are distinctions in those parts in particular upon which the characters of the genera are established.

These are more slight in general in this whole class than in most others: but, if they are properly attended to, they are sufficient.

DIVISION I. BRITISH SPECIES.

Common Dittander.

Lepidium vulgare latifolium. *M30.2*

The root is slender, and runs obliquely under the surface: it is furnished with many fibres, and

sends up tufts of leaves, and young shoots of stalks, in several places.

The first leaves are very large, and of a deep green: they stand on long, slender footstalks; and they are oblong, broad, and serrated at the edges:

edges: they are largest near the base, and sharp-pointed.

The stalk is round, firm, upright, considerably branched, and three feet high.

The leaves on this are numerous, and they are placed irregularly: they have long, slender footstalks, like those from the root; and they resemble them in shape, but they are smaller.

The flowers stand in great numbers at the tops of the numerous branches into which the stalk divides; and they are small and white.

The seed-vessels are small and swelled: the seeds are numerous, very little, and brown.

It is common in our northern counties, and in some other places, and flowers in July.

C. Bauhine calls it *Lepidium latifolium*. Others simply, *Lepidium*.

The whole plant has a violently acrid taste, whence the common people call it *pepperwort*.

The leaves, chewed, bring water into the mouth, and cure the toothach. Externally it is good against the sciatica, and other stubborn pains. The women give a slight decoction of it to promote delivery; but it is not greatly to be recommended for that purpose. A slight infusion of the fresh tops of the plant cut small, works powerfully by urine, and brings away gravel.

In this form also it is no indifferent medicine against scorbutic complaints.

DIVISION II. FOREIGN SPECIES.

Narrow-leaved Dittander.

Lepidium angustifolium. *Pl. 30. 3*

The root is composed of numerous thick fibres. The first leaves are very long and narrow: they grow in a large tuft, and are of a bluish green colour, and not at all indented at the edges.

The stalk is round, upright, firm, scarce at all branched, and two feet and a half high.

The leaves on this are numerous, and stand ir-

regularly: they are long and narrow; but they are joined to the stalk by a broad base.

The flowers stand at the tops of the branches, and they are large and white.

The seed-vessel is small and brown, and the seeds are numerous and minute.

It is a native of Germany, and flowers in June.

C. Bauhine calls it *Lepidium glastifolium*. Others, *Lepidium angustifolium*, and *Lepidium erectum*.

G E N U S VII.

SCIATICA CRESS.

I B E R I S.

THE flower is composed of four extremely small petals, of an inverted oval figure, disposed cross-ways, and having very small bottoms. The cup is composed of four little leaves, which are oval and hollow, and fall with the flower. The seed-vessel is small and flattened, and is sharp at the edge: the seeds are numerous and small.

Linnaeus places this among the *tetradynamia filiculosa*; but he has disposed the plant itself in a very injudicious manner, and very idly played with its generic name.

The plant commonly known by the word *iberis* he has placed among the *nasturtiums*, which he has called by a new name, *lepidium*, taking that also from the plant to which it properly belongs: and in the same class he has another genus of plants, among which many of the *iblaspis* are introduced under the name of *iberis*, while the proper *iberis* itself is in another.

This is a sort of confusion that, to the young student, will appear inextricable; and it is in itself extremely wrong.

The plant *iberis*, which he has without reason put out of the genus called after its name, he might, upon the foundation of his system, have removed altogether out of this class, for it has not six threads, as the rest, four longer and two shorter, whence the name of the class *tetradynamia*; but only two: it is therefore in absolute violation of his established system, that the *iberis* comes among these plants. At the same time it is very plain, that the *iberis* is one of the filiculose herbs; and therefore, that the distinction of four longer and two shorter threads is not an absolute character of that class. This is one of those numerous instances we have recited occasionally, as the subjects occurred, to shew that the system of this author, though recommended by its novelty to weak minds, and by its difficulty to those who are ambitious of understanding abstruse things, is not founded in nature, reason, or truth.

The distinctions of these siliquose and filiculose plants are less accurate in nature than those of any others; wherefore endless cavils may be raised against any generic disposition of them that ever shall be proposed. The most useful method of treating them is therefore to keep as near the established tract as a tolerably nice distinction will admit.

Authors have not seen the cause of this difficulty; but it is plainly this: the cruciform podded plants are indeed but a single class; and this contains properly but two genera, the siliquose making one genus, and the filiculose another. We do a violence to Nature in erecting these genera into the rank of classes; but it is necessary, and in the highest degree useful; and this having been once done, should therefore have remained inviolable.

There

There is no part of Linnaeus's conduct that will in many's case bear less palliation than this. I have taken occasion thus far to explain here my reasons for differing from him, as the plant which is coming under consideration is in itself, and in its proper name, one of the most striking instances of this fault.

Of this plant, distinguished by its proper characters, of which the extreme smallness of the petals is the principal, there is but one species. This is described by the ancients under the name *iberis*, and has virtues attributed to it with justice which belong to no other plant in so eminent a degree. This is a farther reason for preserving its name, continuing it appropriated to the plant, and giving it to no other.

Sciatica Cress.

Iberis. *Pl. 30. 4*

The root is long, slender, and furnished with many fibres.

The first leaves are numerous, small, oblong, and of a pale green. They rise in a thick tuft: they have no footstalks, but are narrowest at the base, and broadest toward the end; and they are indented at the edges.

The stalk is round, upright, and divided into many branches: it is of a pale green colour, and about ten inches high.

The leaves on the main stalk, toward its lower part, are oblong, broad, and sharply serrated, like those from the root; but those on the branches, and on the upper part of the stalk, are narrow, and undivided at the edges, and of a paler green.

The flowers stand in great numbers on the tops of the branches, and they are small and white.

The seed-vessel is small and broad, and the seeds are numerous and minute.

It is frequent in the southern parts of England, though less common in other places. It flowers in July.

C. Bauhine calls it *Iberis latiore folio*. Others, *Iberis*.

Dioscorides speaks with great earnestness of the virtues of this plant against the sciatica; and we read in other of the old Greeks, and in the Romans who copied them, the most surprising accounts of its efficacy in the same disorder. The manner in which they used it was this.

They bruised a great quantity of the root in a mortar, and mixed in with it hogs lard. This ointment they rubbed well in, not only on the hip, but also up the side, and all down the thigh; and after this they covered the parts with a vast plaister of it, spread to a considerable thickness.

This application was suffered to remain on four hours, or in tenderer bodies only three; and in this time it acted as a sinapism, heating and inflaming the skin.

It was then taken off, and the parts softly anointed with oil and wine, and the person afterwards was put into a warm bath. Upon coming out, the part was wrapt round with a good thickness of soft wool; and this generally performed a cure at once. If any pain remained, or the disorder threatened to return, the same method was repeated at the end of three weeks.

Our country-people in some places use the bruised herb for the same purposes, and with great success; but it is not so much regarded as it deserves in the common course of practice.

G E N U S VIII.

GOLD OF PLEASURE.

M Y A G R U M.

THE flower is composed of four petals, which open in a regular cross direction: they are small, roundish, and obtuse at the ends, and they have very narrow bottoms. The cup is composed of four little leaves; they are oval, hollow, and stand apart; the whole cup is coloured, and falls with the flower: the seed-vessel is short and swelled, of a somewhat heart-fashioned form, and terminated by a firm point.

Linnaeus places this among the *tetradynamia filiculosa*; the flower having four longer and two shorter threads, and the seed-vessel being a regular filicule. He also joins very properly under the same name several plants, improperly called by others species of *abyssum*; a genus of very different character.

DIVISION I. BRITISH SPECIES.

1. Common Myagrimum.

Myagrimum vulgare. *Pl. 30. 5*

The root is long, slender, white, and furnished with many fibres.

The stalk is round, firm, upright, a foot and half high, and divided into a great number of branches.

The leaves are numerous, and they are placed with an agreeable regularity from its bottom to its top: they are oblong, narrow, and of a pale

green: they adhere to the stalk by a broad base, and are from thence smaller to the extremity, where they terminate in a point; and they are sharply serrated at the edges.

The flowers stand in little tufts at the tops of the branches, and are of a gold yellow.

The seed-vessels are short and hard: the seeds are yellow.

It is found in corn-fields in some parts of England, and flowers in July.

C. Bauhine

C. Bauhine calls it *Myagrurn sativum*. Others, *Myagrurn vulgare*, and *Myagrurn sylvestre*.

In some of those parts of England where they raise flax, the plant is very common: the seeds of it pass unnoticed among those of that herb, and consequently it rises with the crop from one year to another.

DIVISION II. FOREIGN SPECIES.

1. Broad-leaved Myagrurn.

Myagrurn latifolium majus. *N. 30. 6*

The root is long, slender, and furnished with many fibres.

The first leaves rise in a numerous cluster; and they are oblong, considerably broad, and of a deep green: they have no footstalks: they are very little and very irregularly sinuated at the edges, and obtuse at the end.

The stalk is round, firm, upright, and two feet high: it is divided into many branches.

The leaves on this are placed irregularly, and are broad, and somewhat heart-fashioned: they surround the stalk at the base, and thence terminate in an obtuse end.

The flowers stand at the tops of the branches, and are small and yellow.

The feed-vessels are short, hard, and terminated by a point; and in each there is only a single feed. The vessel has three cells, but two of them are empty.

It is a native of France and Italy, where it is common in their corn-fields, as ours is here. It flowers in June.

C. Bauhine calls it *Myagrurn monospermum latifolium*. Others have followed the same name, and some have called it simply *Myagrurn majus*.

2. Myagrurn with flat, dotted pods.

Myagrurn siliculis compressis punctatis. *N. 30. 7*

The root is long, slender, and furnished with a few fibres.

The seeds of this plant afford a sweet and useful oil in very considerable quantity: it is greatly inferior to the common olive-oil, but there are many purposes it will answer very well in its place.

The first leaves rise in a great cluster; and they are large, oblong, and considerably broad: they are placed irregularly, some standing up, others lying on the ground; and they are not at all indented at the edges.

The stalk rises in the midst; and is round, upright, of a whitish colour, firm, and a foot and a half high: it is divided into many branches, and set thick with leaves toward the top, though there be fewer near the bottom.

These are oblong, broad, and of a pale green: they surround the stalk at the base, and are there broad, and somewhat heart-fashioned; and they grow gradually small from thence till they terminate in a point.

The flowers grow in little tufts at the tops of the stalks, and they are small and white.

The feed-vessel is of a roundish form, and of a firm substance, dotted, and rough on the surface, and terminated by a stiff point.

The feed is large, yellow, and oily.

It is common about the borders of vineyards in France and Italy, and flowers in July.

C. Bauhine calls it *Myagrurn similis silicula rotunda*. Others, *Myagrurn hirsutum*.

The seeds of this kind are excellent against the gravel: they have an oily softness, and a powerful diuretic quality. The peasants in Italy esteem it; but there, like many good medicines here, it is neglected in regular practice.

GENUS IX.

WATER RADISH.

RADICULA.

THE flower is composed of four petals, regularly opening in a cross direction; they are oblong, obtuse, and have very small bottoms: the cup is formed of four narrow, sharp-pointed leaves, that gape asunder; and it is coloured, and falls with the flower: the feed-vessel is short, and of a figure approaching to oval, with a small, weak point: the seeds are numerous and small.

Linnaeus places this among the *tetradynamia siliculosa*; but he has not arranged it well. It is a siliculose, not a filiquose plant, as appears by the form and structure of the feed-vessel; therefore it belongs to the other division, the *tetradynamia siliculosa*. But this is not all that will mislead the student in his arrangement of it. He has taken away its general and received name, and makes it a species of *symbrium*, joining it in with the *lady's-mock* and *watercress*. He calls it the *symbrium with pods of an oval, oblong figure*.

This author's general character of the *symbrium* says, that the pod is long; therefore the very terms are discordant. It is a strange force upon method, to introduce these plants, which he is obliged to distinguish by the shortness of their pods, into a genus, the character of which is to have long ones.

The species of *symbrium* are very numerous, and consequently the road to knowledge very much perplexed according to that disposition. We shall clear it farther, by reducing more of the plants to their distinct and proper genera, and restoring them to their usual and received names.

DIVISION I. BRITISH SPECIES.

1. Pinnate-leaved Water Radish.

Radicula foliis pennatifidis. *N. 30. 8*

The root is long and slender: it is furnished with many fibres, and pierces to a great depth.

The first leaves are very deeply divided in the pinnated form; but their segments are not cut quite to the rib, but are united at the base by a thin slip, running the whole length of the rib: they are oblong, and considerably broad, and of a fresh green.

The stalk is round, green, branched, and weak: it rises to a foot and a half in height, and is of a pale colour.

The leaves on it are numerous, and they have the same division in the pinnated form with those of the root, but it is less regular.

The flowers stand at the tops of the stalks, and are small and yellow.

The feed-vessels are short, and of an oval figure, swelled, softened, and full of little brown seeds.

It is common by waters, and flowers in July.

C. Bauhine calls it *Raphanus aquaticus foliis in profundas laciniis divisis*. Others, *Raphanus aquaticus vulgaris*.

2. Serrated-leaved Water Radish.

Radicula foliis serratis. *N. 30. 9*

The root is oblong and thick: it creeps under the surface, and sends out from different parts clusters of slender fibres.

The first leaves rise in small tufts; and usually there are many of these form different parts of the same root. They are oblong, broad, and of a dusky green; and they are once dentated, and that very deeply near the base, the rest of their edge being undivided.

The stalks rise among these, and are round, firm, upright, and two feet high.

The leaves on them are numerous, and they are placed irregularly: they are long, narrow, and of a pale green; sharp-pointed, and serrated at the edges, but not deeply.

The flowers stand at the tops of the stalks in little tufts, and are large and yellow.

The feed-vessels are short and roundish: the seeds are numerous, small, and brown.

It is common about the sides of ditches, and flowers in August.

C. Bauhine calls it *Raphanus aquaticus alter*, as distinguishing it from the preceding; and most

authors copy the same name, though so very idle and unexpressive.

Linnaeus supposes the two plants to be the same species, differing only from accidents of growth, the one having more water than the other; and shewing it in the form of the leaves. But this is an error: they differ in the shape of the leaves, in the form and disposition of the roots, and in the bigness of the flowers. More cannot be required for the distinction of the species in any one from another.

Indeed there will happen some farther accidental variations under particular circumstances; and from these some have established imaginary species, which it is fit to reduce to the common kinds; though not those two to one.

Thus, when a part of the first species is continually under water, these leaves which grow from such part of the stalk, will be divided into fine capillary segments, in the same manner as those of the various-leaved water-crowfoot, which are always immersed under the surface.

In this state the plant has been described by Linnaeus in some of his earlier works, and by Van Royen, Dalibard, and others, under the name of *symbrium*, with the lower leaves capillaceous, and the others pinnatifid.

In a very dry situation some of the upper leaves of the second species here described will be deeply serrated so as to appear pinnatifid.

In this state Vallinieri has described it as a new species, under the name of *symbrium*, with various leaves; and Haller under that of *symbrium*, with the lower leaves oval and serrated, and the upper ones pinnated.

The reducing these to their proper species as varieties, for they are evidently nothing more, takes off the imaginary foreign kinds of *radicula*; and they are, by the accustomed and judicious eye, easily referred each to the plant to which it belongs: but it is pursuing a just reduction to extravagance and error, to desire to make two absolutely different species pass for one, because each has its varieties, which may be referred to it. This is one of the instances of that common mistake, the not knowing where to stop.

The fresh leaves of the *water radish* work by urine; and the seeds have the same quality, but in no great or eminent degree.

The juice is in some places drank for the scurvy with success.

GENUS X.

SCURVYGRASS.

COCHLEARIA.

THE flower is composed of four petals, displayed cross-ways; they are small, short, and of an inverted oval figure; they spread open, and have short bottoms. The cup is formed of four oval, hollow, little leaves; they gape open, and fall with the flower: the feed-vessel is heart-fashioned, and slightly flattened, obtuse at the end, somewhat rough, and pointed with the remain of the style.

N° XXVII.

Y y y

Linnaeus

Linnaeus places this among the *tetradynamia siliculosa*; the flower having four longer and two shorter threads, and the seed-vessel being a proper silicule.

He introduces into the same genus the horse-radish, and some others, which do not agree with the characters himself has established for ascertaining the distinction, we have therefore removed these to their proper places.

DIVISION I. BRITISH SPECIES.

1. Common Scurvygrafs.

Coclearia foliis subrotundis. M.S. 10

The root is long, slender, white, and furnished with several little fibres.

The first leaves rise in a large tuft, and have long and thick footstalks: they are short, broad, and of a figure approaching to round, but somewhat indented at the base, and sinuated variously and irregularly at the edges.

The colour of these leaves is a fresh, bright green; and they are of a very tender, juicy substance.

The stalks are numerous, round, of a pale green, ten inches high, and not very firm: they are but little branched, and have only a few leaves.

These are oblong, narrow, and altogether unlike those from the root: they stand in pairs, one, two, or three pair on each stalk, and are of a faint green.

The flowers grow at the tops of the branches in little tufts, and they are small and white.

The seed-vessels are small, and the seeds are numerous and minute.

It is common on our sea-coasts, and flowers in May.

C. Bauhine calls it *Coclearia folio subrotundo*. Others, *Coclearia rotundifolia*.

It gets a place in gardens from its use and virtues, and has thence also obtained the name of *garden scurvygrafs*, and *coclearia bortenfis*. Some also call it *Dutch scurvygrafs*.

It is not only found upon the sea-coasts, but in many parts of England on hills near springs.

In these places the leaves are smaller, and more perfectly round; and under this form it has been described as a distinct species; but the seeds being sown in a garden, produce the common kind.

The *coclearia rotundifolia* of Merret, named in the last edition of Ray's synopsis, and the *coclearia rotundifolia parva* Batava of Lobel, are this variety of the common *scurvygrafs*, and not any distinct species.

2. Jagged-leaved Scurvygrafs.

Coclearia folio sinuato. M.S. 11

The root is small, longish, and furnished with innumerable fibres.

The first leaves rise in a little cluster, and have very short footstalks: they are of an oblong figure, broadest toward the base, sharp at the point, and deeply and irregularly cut in along the edges.

Their substance is fleshy: they are full of juice, and their colour is an obscure green.

The stalks are numerous, thick, juicy, of a pale green, and ten inches high.

The leaves on these resemble those at the root in their general form; but they have no footstalks, and they are more slightly notched at the edges.

The flowers stand at the tops of the branches in little clusters, and they are small and white.

The seed-vessel is short and tender: the seeds are numerous and small.

It is common in our salt-marshes, and on the sea-shores, where the bottom is mud. It flowers in May.

C. Bauhine calls it *Coclearia folio sinuato*; and most other writers take the same name: but some call it *Coclearia vulgaris*, and some *Coclearia Britannica*.

It has commonly in our markets the name of *sea scurvygrafs*, by way of distinction from the other called, as we have said, *garden scurvygrafs*; and it has also the name of *English scurvygrafs*, by way of distinction from that other kind called *Dutch*: but these are very ill chosen and unexpressive terms. Names taken from the shape of the leaves, which is the true mark of their difference, would be much more proper.

3. Little short-leaved Scurvygrafs.

Coclearia minor foliis brevibus.

The root is a tuft of long, slender fibres, connected to a little head.

The first leaves are supported on long fleshy footstalks; and they are small, and of a roundish figure, but irregularly sinuated at the edges, and terminated by a short point.

The stalks are very numerous, weak, of a pale green, scarce at all branched, and five inches high.

The leaves on these resemble those from the root: they are broad, short, roundish, and sinuated on the edges.

The flowers are larger than in the others, and of a milky white.

The seed-vessels are short, and the seeds are numerous and small.

It is found on the sea-coast of Wales, and flowers in April.

Ray calls it *Coclearia minor rotundifolia*. It may be called *Welch scurvygrafs*.

4. Ivy-leaved Scurvygrafs.

Coclearia foliis angulosis parvis. M.S. 12

The root is slender, long, white, and furnished with many fibres.

The first leaves rise in a very small but thick tuft: they are supported on short and slender footstalks, and are divided into three parts, in the manner of many of the leaves of ivy: they are of a thick, fleshy substance, and of a brownish colour usually, though sometimes of a fresh and lively green.

The stalks are very numerous: they are round, thick, brown, and tolerably upright, except in the lower part, where they usually lean a little upon the ground, and they are six inches high.

The leaves on these are more numerous than on almost any of the other kinds, and they perfectly resemble those from the root: they are supported on long, slender footstalks, and are three pointed as the others.

The flowers are small and white: they stand in little tufts at the tops of the stalks.

The seed-vessels are very short, and the seeds are numerous and small.

It is found on the coast of Lancashire.

Ray calls it *Coclearia marina folio anguloso parvo*.

The earlier botanists seem to have described it, though they have referred it to a wrong genus. Lobel calls it *Tblaspi bederaceum*, and our Gerard and Parkinson from him *Tblaspi bederaceo folio*.

All these species have the same virtues, and they are very considerable. The first and second kind here described are most used; and of these, the preference given by custom to the first, is due in reality to the second.

It is so eminent in the cure of the scurvy, that

it is thence named in our language. The juice is taken in spring; and no way is better. Some give the infusion, which has also a great deal of virtue; but the method of brewing it in ale is also useful.

A conserve of the fresh top is another very good method of taking it.

The scurvy, under various forms and appearances, is so common in this kingdom, and the virtues of this plant are so sovereign against it, that its use cannot be too much recommended. In spring, when the herb is in season, the juice should be used; after this the conserve, so long as it retains its virtue; and, when it is not to be had in other forms, a weak beer brewed with it will be very serviceable. It is a method by no means to be used instead of the others, but may have its effect when they cannot be had. To have any considerable efficacy, the malt liquor must be in itself small: it must be very strong of the herb, and it must be used for the common drink.

The fresh leaves of *scurvygrafs*, bruised, and laid to the face for a few hours, are recommended to take off spots and sunburn; and, when the skin can bear them, they will take this effect: but those who have delicate complexions take most care of them; and such cannot bear it.

DIVISION II. FOREIGN SPECIES.

Purple-flowered Scurvygrafs. *M.S. 13*

Coclearia floribus purpurascens.

The root is long, slender, and furnished with many fibres.

The first leaves are very numerous, and are supported on short, reddish, tender footstalks: they are of a roundish figure, but somewhat oblong, and sinuated at the edges.

The stalk is round, upright, firm, and ten inches high.

The leaves stand irregularly on it, and are of an oval figure, broad at the base, where they adhere to the stalk, and smaller to the end, where they terminate obtusely; and they are variously and irregularly indented at the edges.

Some of the least leaves toward the top of the stalk have only two notches. This gives them some resemblance to the ivy-leaved kind just described; but they are longer, and the whole plant is altogether different.

The flowers stand in little clusters at the tops of the stalks and branches: they are small; but they are of a very beautiful pale purple.

The seed-vessels are large and oval: the seeds are very numerous and brown.

It is a native of Denmark, and flowers in April.

Morison calls it *Coclearia minima Armorica flore dilute violaceo*.

Its virtues are the same as those of the others.

G E N U S XI.

C R E S S.

N A S T U R T I U M.

THE flower is composed of four petals, which expand cross-ways: they are small and oblong, largest at the top, where they terminate obtusely, and terminated by very narrow bottoms in the cup. The cup is formed of four, little leaves, which are of an oval figure, and hollowed, and it falls with the flower: the seed-vessel is rounded, but slightly sinuated at the top, somewhat compressed, and sharp at the edges: it is divided into two cells, and in each is a single seed.

Linnaeus places this among the *tetradynamia siliculosa*; the flower having four longer and two shorter threads, and the seed-vessel being a regular silicule: but he has introduced great confusion into the science by his conduct and disposition of it.

He takes away the name *cress*, *nasturtium*, and calls all the plants belonging to it species of *lepidium*. This has been rashly done; and he seems since to have perceived it; for, at the end of the general character, he adds, that the seed-vessel of *lepidium*, commonly so called, is not sharp at the edges, or sinuated at the top; therefore *lepidium* is not properly a species of this genus, though he has used its name for the general term.

We have separated that genus into its proper place, and some others introduced in this confused manner by the same author into their proper genera; and shall here treat distinctly of those species properly understood by the name *crefs* or *nasturtium*, and separated by those characters here established from all the other filiculose plants.

DIVISION I. BRITISH SPECIES.

1. Narrow-leaved Crefs.

Nasturtium angustifolium. *Pl. 30. 14*

The root is long, thick, white, and furnished with many fibres.

The leaves that rise from it are oblong, and narrow, and form a little thick tuft: they are of a pale green, cut in deeply at the edges, and sharp-pointed.

The stalk is round, thick, firm, upright, very much branched, and a foot or more in height.

The leaves stand thick upon it, and in a perfectly irregular manner: they are oblong, narrow, and of a pale green: they have no foot-stalks; they are not at all indented at the edges, and they terminate in a sharp point.

The flowers stand at the tops of the branches in little clusters, and they are very small and white.

The seed vessels are short and hard: the seeds are large and brown.

The whole plant has a strong acrid taste.

It is common by the road-sides in Essex, and some other parts of the kingdom, though utterly unknown in many counties. It flowers in July.

C. Bauhine calls it *Nasturtium sylvestre osyridis folio*. Others, *Thlaspi angustifolium*, and *Thlaspi minus*.

The plant in its general aspect has much of the appearance of the common garden-crefs, especially while the radical leaves remain; but they are generally of short continuance, fading as the plant flowers.

2. Rock Crefs.

Nasturtium pumilium petraeum. *Pl. 30. 15*

The root is slender, oblong, and furnished with a great number of small fibres.

The first leaves rise in a small round tuft: they are oblong, narrow, and very deeply sinuated at the edges; so that they have much the appearance of the pinnated division: they are of a pale green at their first growth, but they soon become brown.

The stalks rise among these several together: they are round, slender, upright, and about four inches high.

The leaves on them are very small and few; sometimes they are altogether naked, and there are rarely more than two or three on the stalk when the plant is most vigorous and healthful: these are short, and deeply divided into three or four segments.

The flowers stand at the top in a little tuft, and they are very small and white.

The seed-vessel is short, and the seeds are very small.

The flowers last but a little while on this plant;

but there are usually found on the tops of the stalks clusters of the seed-vessels, which get a brown colour.

It is not uncommon in barren hilly places. It flowers in April.

Tabernamontanus calls it *Nasturtium petraeum*; a name most have copied: but some call it *Bursa pastoris minor*.

3. Rocket-Crefs.

Nasturtium foliis cruce.

The root is long, slender, white, and furnished with many fibres.

The first leaves grow in a little tuft, and are oblong, and deeply divided in the pinnated manner: they are of a faint green, and of a tender substance.

The stalk is round, firm, upright, branched, and a foot high.

The leaves on it resemble those from the root; but they are smaller, narrower, and more divided: the segments are very slender, a little waved, and pointed at the ends.

The flowers are small, and stand in tufts at the tops of the branches.

The seed-vessels are also small, and the seeds are brown.

It is found on some hilly pastures, and flowers in August.

C. Bauhine calls it *Nasturtium sylvestre cruce affine*. Others, *Eruca nasturtio cognata tenuifolia*. It has much the aspect in general of the rocket kind.

4. Fine-leaved Crefs.

Nasturtium foliis tenuissime divisis. *Pl. 30. 16*

The root is a small, oblong fibre, with a few very slender threads hanging from it in various parts.

The first leaves rise irregularly, a few in a cluster, and are of a pale green: they are oblong, narrow, and very beautifully divided in the pinnated manner: each consists of six or eight pairs of extremely fine segments, and an odd one at the end; but they are all connected by a rim of leaf that runs all along the middle rib.

The stalks rise in the midst of this tuft, and are numerous, weak, slender, and very much branched.

The flowers are small and white: they stand at the tops of the branches in little clusters.

The pods are short and very small, and the seeds are minute and yellowish.

It is found on the hilly pastures in the west of England, and among rocks. It flowers in May.

Ray calls it *Nasturtium montanum annuum tenuissime divisum*. Plukenet, *Nasturtium petraeum annuum nostras*.

5. Swines

5. Swines Crefs. *Pl. 30. 17*

Nasturtium supinum capsulis verrucosis.

The root is long, slender, white, and furnished with many fibres.

The first leaves spread themselves beautifully upon the ground, forming a regular circle: they are long, moderately broad, and very deeply divided in the pinnated manner, and their colour is a fresh and pleasant green: the segments are narrow, and divided into three points, or notched on each side at the end.

The stalks are numerous, round, green, and divided into many branches: they are thick and firm; but they do not rise up from the ground, spreading themselves every way like the leaves.

The flowers grow in clusters in the bosoms of the leaves, and they are small and white.

The seed-vessels are short and rough: the seeds are small and brown.

It is common every where by way-sides, and flowers in May.

C. Bauhine calls it *Ambrosia campestris repens*. Others, *Coronopus Ruellii*.

All these cresses are good against scorbutic complaints; and operate by urine. The last species is of late years become famous as an ingredient in those medicines, the receipt for which the government purchased of Mrs. Stevens for the cure of the stone.

DIVISION II. FOREIGN SPECIES.

1. Garden Crefs.

Nasturtium foliis variis. *Pl. 30. 10*

The root is long and slender, and has numerous fibres.

The first leaves are long, narrow, and variously and irregularly divided: they are of a fresh green colour, a tender substance, and a pleasing acrid taste.

The stalk is round, upright, firm, and of a whitish green, not much branched, and two feet high.

The leaves on this are numerous, and placed irregularly: they are divided in the pinnated manner into narrow segments, very variously and irregularly, as those at the root; but the divisions of these are narrower.

The flowers stand at the tops of the stalks and branches, and are small and white.

The seed-vessels are also small: the seeds are brown.

It is a native of Germany, but is sown in our gardens for the use of the table, the seed-leaves being excellent among what is called *young salad*.

C. Bauhine calls it *Nasturtium sylvestre vulgatum*. Others, *Nasturtium hortense*.

Culture occasions a great deal of variety in the leaves of this plant.

We see them sometimes curled in a very beautiful manner at the sides, and sometimes undivided and broad, without so much as indentings at the edges. Under these appearances it has been described by some as two distinct species, but they are only varieties.

The plant is of the nature of the several wild cresses, and is no way to be taken more properly than as a salad.

G E N U S XII.

TREACLE MUSTARD.

T H L A S P I

THE flower is composed of four petals placed cross-ways: they are small, and of an inverted oval form, with very narrow bottoms. The cup is formed of four little leaves, which stand somewhat open: they are oval and hollow, and fall with the flower. The seed-vessel is broad, short, and compressed; it is narrow at the base, and broadest at the extremity: the seeds are numerous.

Linnaeus places this among the *tetradynamia filiculosa*; the flower having four longer and two shorter threads, and the seed-vessel being a regular silicle.

He joins the shepherds purse to this genus, but without reason. The seed-vessel in that plant is of a very particular form; therefore we have separated it, and described it in its place: and we have here joined several proper *thlaspi* to the rest, which Linnaeus separates under various names.

DIVISION I. BRITISH SPECIES.

1. Common Thlaspi.

Thlaspi incanum majus. *Pl. 30. 1*

The root is long, slender, white, and furnished with numerous fibres.

The first leaves are few, and quickly fade: they are long, narrow, and sharp-pointed, of a pale green, a little hairy, and supported on long, slender footstalks.

No 27.

The stalk grows in the centre of these, and they grow yellow, and decay as it rises in height: it is firm, round, of a pale green, and a little hairy, and toward the top divides into several branches.

The leaves on it are long, narrow, and sharp-pointed: they are broadest at the base, and there adhere to the stalk with a kind of appendage or point on each side; and from this part they grow smaller all the way to the end.

Z z z

The

The flowers are little and white: they stand in small tufts at the tops of the branches, and the seed-vessels appear in them as soon as they are open.

These are short, and of a pale green: the seeds are brown and minute.

It is common in corn-fields in many parts of England, and flowers in August.

C. Bauhine calls it *Tblaspi arvense vaccariae incano folio majus*. Others, *Tblaspi vulgare*, and *Tblaspi vulgatissimum*.

The seed has been celebrated for many virtues, but it is not regarded in the modern practice. It is an attenuant, and works by urine. The ancients have written great things in praise of it as a cure for the sciatica; and there was at one time an opinion of its being very excellent against venomous bites and poisons.

This obtained it a place in some of the celebrated old compositions; but these are very ill established qualities.

2. *Tblaspi* with hairy pods.

Tblaspi villosum capsulis hirsutis. *Al. 39. 2.*

The root is long, slender, and furnished with a few fibres.

The first leaves are supported on slender, hairy footstalks; and are themselves also hairy, and of an oval figure.

The stalk rises in the centre of a tuft of these, and is round, firm, upright, not at all branched, and a foot or more in height.

The leaves on it are unlike those at the root: they are broad, oblong, and somewhat heart-fashioned at the base, where they surround the stalk; and thence they grow narrower to the end.

The flowers stand in pretty large tufts at the tops of the stalks, and they are large and white.

The seed-vessel is short and hairy, and the seeds are yellowish.

It is common on the Welch mountains, and in some parts of the west of England. It flowers in August.

C. Bauhine calls it *Tblaspi villosum capsulis hirsutis*. Others, *Tblaspi majus perenne*. The whole plant is considerably hairy from bottom to top.

3. Broad-podded *Tblaspi*.

Tblaspi filiculis latis. *Al. 39. 3.*

The root is long, slender, and furnished with a few fibres.

The first leaves are oblong, moderately broad, and of a faint green: they are obtuse at the ends, and a little waved at the edges.

The stalk rises among these, and they soon after fade: this is round, firm, upright, branched, and about ten inches high.

The leaves are placed alternately upon it, and resemble those from the root: they are oblong, broad, and blunt at the end, of a pale green, a little notched at the edges, and without footstalks.

The flowers are small and white: they stand ten or a dozen together at the tops of the stalks.

The seed-vessel is very broad and thin, and has a deep nip at the edge: the seeds are small and yellowish.

It is frequent about corn-fields, and in waste grounds, in many parts of England. It flowers in July.

C. Bauhine calls it *Tblaspi arvense filiculis latis*. Others, *Tblaspi Dioicoidis*. From the breadth of the seed-vessels, supposed to represent a piece of money, it has obtained the English name of *Pennycrefs*.

The seeds of this species are celebrated by the old Greek writers in rheumatic cases, in obstructions of the viscera, and against poison; but these virtues they attributed in the same manner to many others upon little foundation, either in reason or correct experience.

4. Little oval-leaved *Tblaspi*.

Tblaspi foliis ovatis minus. *Al. 39. 4.*

The root is slender, and creeps under the surface, sending out in different places many fibres.

The first leaves rise in a thick tuft: they are supported on slender footstalks, and are of an oval figure, and pale green.

The stalks rise in the midst; and are round, upright, firm, and rarely branched; of a dusky colour, and about eight inches high; often much less.

The leaves on these are short and small, broad at the base, where they adhere to the stalk without any pedicles; and thence gradually smaller to a point.

The flowers are small and white: they stand at the tops of the stalks in small tufts.

The seed-vessels are short, and have this point in the middle longer than in most kinds: the seeds are numerous, little, and brown.

It is not common any where, but more frequent in Yorkshire than any other part of England.

C. Bauhine calls it *Tblaspi montanum glabris folio minus*. J. Bauhine, *Tblaspi foliis globularia*. Others, *Tblaspi bellidis folio*.

5. Smooth, broad-leaved *Tblaspi*.

Tblaspi foliis latioribus glabrum.

The root is long, slender, and furnished with numerous fibres.

The first leaves are oblong, broad, and obtuse at the end, not at all indented at the edges, perfectly smooth, and of a pale green.

The stalk rises in the centre, and these soon after grow yellow and decay: it is firm, upright, branched, and a foot and a half high.

The leaves are oblong, and considerably broad: they have no footstalks, and they are of a pale green, perfectly smooth, and not indented at the edges.

The flowers grow at the tops of the branches, and are succeeded by small smooth seed-vessels.

The seeds are roundish, and of a glossy brown. It is found in Suffolk, and in some other parts of England, and flowers in August.

Ray calls it *Tblaspi vaccariae folio glabrum*. It is one of the plants of late years discovered by the botanists of our country, and not known to the earlier authors.

6. Small

6. Small perfoliate *Tblaspi*.

Tblaspi perfoliatum minus. *Al. 39. 5.*

The root is a small, white fibre, divided at the end into a few minute threads.

The first leaves are oblong, broad, and rounded at the ends: they are not indented at the edges, and they have no footstalks: they are of a deep dusky green, which they usually retain to the last; and they remain with the plant in its growth; not, as the others, fade when the stalk rises. This may probably be owing to the smallness of the plant, which draws too little nourishment to exhaust them.

The stalk is slender, weak, of a pale colour, not at all branched, and about four inches high.

There usually are three or four leaves on it, rarely more: these are broad, short, oval, and sharp-pointed; and they so perfectly surround the stalk at the base, that it seems to run through

DIVISION II. FOREIGN SPECIES.

1. The greater perfoliate *Tblaspi*.

Tblaspi perfoliatum majus. *Al. 39. 6.*

The root is long, thick, and hung with many fibres.

The first leaves grow in a small cluster, and are oblong, broad, and serrated: they have very short footstalks: their colour is a deep green, and they are sharp-pointed.

The stalks are numerous, round, upright, rarely at all branched, and ten inches high.

The leaves on these are placed at distances, and are of a heart-like shape: they have no footstalks, and they are of a pale greyish green: they are broadest at the base, where they inclose the stalk, but do not join behind it; and they are sharply serrated on both sides, as they decrease in breadth, to the extremity, where they terminate in a point.

The flowers stand at the tops of the stalks, and are small and white.

The seed-vessels are small, and divided at the end pretty deeply.

The seeds are small and brown. It is a native of the south of France, and flowers in July.

C. Bauhine calls it *Tblaspi perfoliatum majus*.

2. Heart-podded *Tblaspi*.

Tblaspi filiculis cordatis foliis integris.

The root is small, oblong, and furnished with a few fibres.

The first leaves are small, and quickly fade: they are oblong, and moderately broad: they rise from the root without any footstalks; and they are of a pale green, undivided at the edges, and obtuse at the end.

This stalk rises in the midst, and is round and firm, of a pale green, not at all branched, and four or five inches high.

The leaves on it are like those from the root, oblong and broad, and undivided at the edges: they adhere to the stalk without any footstalks, and are obtuse at the ends.

them: they are of a pale green, and not serrated.

The flowers are small and white: they stand in little clusters at the tops of the stalks, and soon fade.

The seed-vessels are broad, short, and flattened: the seeds are small and brown.

It is found in barren stony places in many parts of England, and flowers in July.

C. Bauhine calls it *Tblaspi perfoliatum minus*; a name copied by most since his time. Others, *Tblaspi minus*, and *Tblaspi minus Clusii*.

All the species of *tblaspi* agree in their qualities with the first described kind; but that is supposed to possess them in the most powerful degree. The seeds are the part that contain their virtues in the greatest perfection, and they should be used fresh.

The flowers are few and small: they are white, and they are placed at the top of the stalk; but they quickly fall off: the pods are heart-fashioned, and have a point in the center of the division.

The seeds are small and brown.

It is a native of Spain, and flowers in May.

C. Bauhine calls it *Tblaspi capsula cordata peregrinum*. Others, *Tblaspi cordatum*.

3. Garlic *Tblaspi*.

Tblaspi foliis obtusis dentatis allium redolens.

The root is long and thick, and is furnished with a few straggling fibres.

The first leaves rise in a large tuft, and are supported on long, slender footstalks: they are short and broad, of an oval figure, and of a pale green; and they are rounded at the ends, and dentated at the edges.

The stalks are numerous, round, whitish, and irregular: they are not much branched, frequently not at all, and they are not perfectly upright.

The leaves on these are of the same figure with those from the root, short, oval, obtuse at the end, dentated a little, or rather waved at the edges, and placed on footstalks toward the lower part, but without any at the upper.

The flowers are larger than in most of these kinds, and white: they stand in a spike at the top of the stalk.

The seed-vessels are of an oval figure, very little compressed, dentated at the end, and full of small brown seeds.

It is common in the south of France, and flowers in August.

The whole plant has a strong smell of garlic.

C. Bauhine calls it *Scorodo tblaspi minus Aldrovandi*. Others, *Tblaspi allium redolens*.

4. Little red-flowered *Tblaspi*.

Tblaspi foliis carnosiss floribus rubris.

The root is long, thick, and furnished with many fibres.

The

The first leaves are small, but they spread themselves in a regular cluster upon the ground: they are oblong, narrow, and of a pale green; and they are of a fleshy substance, and have no footstalks.

The stalks are weak, slender, and scarce able to support themselves: they are usually of a redish colour toward the top; and in the lower part, and sometimes nearly all the way up, they are so close covered with leaves, that they are scarce to be seen.

These leaves are short, and of an oval figure: they are very small, and they stand close over one another: they are naturally of a pale green, but they often become red.

The flowers stand at the tops of the stalks, and are moderately large, and of a pale purple, streaked with a deeper red.

The seed-vessels are oblong and thick: the seeds are very small, numerous, and brown.

It is common in the south of France, and in Italy, and other warm parts of Europe, and is most frequently seen in rocky, hilly places.

C. Bauhine calls it *Tblaspi parvum saxatile flore rubente*. Others, *Lithontblaspi carnosio folio*.

5. Great Candy-Tuft. *Pl. 39. 10*

Tblaspi umbellatum Creticum majus.

The root is long, slender, and furnished with numerous fibres.

The first leaves rise in little tufts: they are oblong, moderately broad, ferrated at the edges, and sharp-pointed: they have no footstalks, but rise from the root with a long narrow base, and they are of a pale green colour.

The stalk grows in the centre of these, and is round, firm, upright, and of a pale green: it rises to a foot or more in height, and is very much branched.

The leaves that grow on the lower part of the stalk resemble those from the root; but those on the upper part of it are narrow, long, and not at all divided at the edges.

The flowers stand at the tops of the stalks and branches; and are white, or of a pale flesh colour, or of a deep or purplish tinge; for all these are only accidental varieties in colour, while the plant is the same in every other respect.

The seed-vessels are oblong and thick: the seeds are numerous and small.

It is common in Italy, and in the Greek islands, particularly Crete.

C. Bauhine calls it *Tblaspi umbellatum Creticum iberidis folio*. Others, *Tblaspi Candie*. We have it in our gardens as an ornament to borders, and call it *Great candy tuft*.

6. Little Candy Tuft. *Pl. 39. 11*

Tblaspi umbellatum Creticum minus.

The root is long, slender, and furnished with a few fibres.

The first leaves are oblong, narrow, and of a pale green: they have no footstalks, but run up with a small base, and they are a little ferrated at the extremity.

The stalk is round, thick, of a pale green, vastly spread out into branches, and about eight inches high.

The leaves upon this all the way up are like those from the root: they are long, narrow, and ferrated just about the tip, but in no other part.

The flowers grow on the tops of the branches in a kind of umbells; and are small, white, or redish, and sweet-scented.

The seed-vessels are oblong, and the seeds are numerous, small, and brown.

It is a native of the Greek islands, and of many other warm countries, and flowers in July.

C. Bauhine calls it *Tblaspi umbellatum Creticum flore albo odore minus*.

Some prefer this to the larger kind in gardens.

7. The Rose of Jericho. *Pl. 39. 12*

Tblaspi frutescens parvum floribus albo virentibus.

The root is long, slender, and woody, and is hung with a few straggling fibres.

The first leaves are few, and they very quickly wither: they are oblong, somewhat broad, and of a faint green, obtuse at the ends, and indented bluntly and slightly at the edges.

The stalks are numerous, thick, woody, and divided into many branches: they spread themselves circularly on the ground, and rise only a little from it at the points of the branches: they are two or three inches in length; so that when they lie expanded, the plant forms a circular tuft of about half a foot.

The leaves stand irregularly on these, and those toward the lower part of the stalk are like the first from the root, broad, oblong, and indented at the edges.

The flowers are small, and of a greenish white: they stand on short footstalks in the divisions of the branches.

The seed-vessels are small and short: the seeds are small and brown.

It is a native of the East, and flowers in July. After this the leaves fall off, and the stalks bend inwards till their tops meet; and the whole plant then forms a round lump of the bigness of a man's fist, and of a woody substance.

In this state it is brought over frequently as a curiosity, and, if laid into a basin of warm water, it will expand the branches, and spread itself out as it grew at first.

C. Bauhine calls it *Tblaspi rosa Hieracibentea vulgo dicta*. Others, *Rosa Hieracibentea*.

The reason of its being called a *rose*, is its being of the size, and rudely resembling the form of one in its dry state.

8. The Candy Tuft Tree. *Pl. 39. 17*

Tblaspi sempervirens floribus umbellatis.

The root is thick and spreading; and is furnished with many fibres.

The stem is hard, woody, and covered with a brown bark: it does not grow to any great height, but is divided into a number of branches.

The leaves grow on these in an irregular clustered manner, great part of the stalk being bare, and large tufts growing in other places; sometimes from the body of the branches, sometimes supported on a kind of footstalks. Each leaf is oblong, narrow, and obtuse, not at all indented, and of a fresh green.

The flowers grow in small tufts at the extremities of the branches, and they are small and white.

The seed-vessels are roundish and flattened, and the seeds are brown.

It is common in the Greek islands, and flowers there all the year round. We have it in gardens, where it also continues flowering many months.

C. Bauhine calls it *Tblaspi montanum sempervirens*. Others, *Tblaspi Creticum perenne flore albo*. Some, *Skrub tblaspi*.

9. Buckler Thlaspi.

Tblaspi capsulis didymis. Pl. 39. 13

The root is long, slender, and furnished with a few fibres.

The first leaves lie spread upon the ground in a circular tuft: they are long, narrow, and deeply indented at the edges, and are of a pale green.

The stalk rises in the midst of these; and is round, firm, upright, and of a whitish colour, a foot high, and divided into branches toward the top.

The leaves on this are few and small: they are of the same pale green with those from the root, and are lightly ferrated at the edges, and sharp-pointed: they have no footstalks.

The flowers stand at the tops of the branches in little clusters: they are small, and of a pale yellow.

The seed-vessels are very beautiful: they are thin and rounded, and they divide in an elegant manner; two stand together, with the style between them.

It is frequent in Germany, and some other parts of Europe, and flowers in July.

C. Bauhine calls it *Tblaspi biscutatum asperum hieracifolium majus*. Others, *Tblaspi clypeatum*.

G E N U S XIII.

S U B U L A R I A.

THE flower is composed of four petals placed cross-ways: they are of an inverted oval figure, and very small. The cup is formed of four small leaves, which stand wide, and are oval and hollow. The seed-vessel is small, and of an inverted oval figure, very little compressed, and divided into two parts by a membrane which goes cross-ways: the seeds are very small and round.

Linneus places this among the *tetradynamia siliculosa*; the flower having four longer and two shorter threads, and the seed-vessel being a regular silicle.

It is a new discovered genus, and has never had any English name. All the known species of it are natives of Britain.

1. Soft-leaved Subularia.

Subularia foliis levibus. Pl. 39. 14

The root is a tuft of very slender and considerably long fibres.

The leaves are numerous, slender, and long: they resemble rushes; but they are small: about two inches in length, often not half so much, and of a pale green: they are rounded on the under part, flat on the upper, and sharp pointed.

The stalks rise among these; and are naked, very slender, jointed, and crooked, and about four inches high: at every knee or joint there stands a single flower; this is small and white.

The seed-vessel is also small, and the seeds are numerous and yellowish.

It is found at the bottoms of deep ponds in the northern counties, and flowers under water in June and July.

Ray calls it *Subularia erecta junci foliis mollibus acutis*.

2. Subularia with long, brittle leaves.

Subularia foliis longioribus fragilibus.

The root is composed of numerous, long, and small fibres.

The leaves are very slender, and six or eight inches long: they rise in a considerable tuft; and they are round at the back, flat in the upper surface, and of a pale green: they are transparent, and appear pierced full of little holes; and they are very brittle.

The stalk is slender and round, and the flowers

Nº XXVIII.

are placed at distances from the bottom to the top of it: they are small and whitish.

It is found in the bottoms of deep standing waters in Yorkshire, and flowers in June.

Ray calls it *Subularia fragilis folio longiore et tenuiore*.

3. Firm-leaved Subularia.

Subularia foliis rigidis.

The root is composed of many long and thick fibres.

The leaves are oblong, slender, and sharp-pointed: they stand upright; and are of a deep green, and are very rough and harsh to the touch: they are rounded on the back, and flat on the upper side; and are biggest at the bottom, and smallest at the extremity.

The stalk is upright, slender, and green: there are no leaves on it, but at distances single flowers: these are greenish, and seldom quite open.

The seed-vessel is small, and the seeds are numerous and brown.

It is found in Yorkshire, and other parts of the north of England, at the bottoms of fish-ponds, and flowers in August.

Ray calls it *Subularia vulgaris erecta folio rigidissimo*.

4. Creeping soft-leaved Subularia.

Subularia repens foliis mollioribus.

The root is composed of numerous fibres.

The first leaves rise like a tuft of short grass; standing

standing, some upright, and others spreading out obliquely.

Among these rise stalks, which, when they have grown to two or three inches, droop at the ends, and touching the mud, take root again, sending up there new tufts of leaves like the first. By this means the plant spreads itself every way, and in a little time covers a great space of the bottom.

The leaves and stalks are of a pale green colour, and soft substance: the leaves are rounded at the back, and flat at the front-side, and are stuffed with a tender pithy matter, as rushes are.

The stalks which support the flowers rise to four inches in height; and are weak, slender, and stuffed with a pith like the leaves.

The flowers are very small, and of a greenish white.

The seed-vessels are oval, and full of small brown seeds.

It grows at the bottoms of rivers in the north of England, and flowers in July.

Ray calls it *Subularia repens folio minus rigido*.

The virtues of these plants are altogether unknown.

S E R I E S II.

Those of which there is no species native of this country.

G E N U S I.

A L Y S S U M.

THE flower is composed of four petals spreading cross-ways: they are small, and open wide; and they have very short and slender bottoms. The cup is oblong, and is formed of four little leaves: these are of an oblong oval shape, and obtuse at the ends: they converge at the points, and fall with the flower. The seed-vessel is roundish, and has a slender point of considerable length rising from its end: the seeds are oval and compressed. It is singular in this plant, that the two shorter threads in the flower are notched on the inside toward the base, or have in that part a little jagged standing inward.

Linnæus places this among the *tetradynamia filiculosa*; the flower having four longer and two shorter threads, and the seed-vessel being a regular filicula. The species of it have been treated of by some authors in an irregular and indeterminate manner, and many of them called by other names.

1. The Alyssum of the Antients.

Alyssum antiquorum. *Pl. 39. 15*

The root is slender, long, and divided into fibres at the bottom.

The first leaves grow in an irregular manner, some upright, some leaning, and some lying altogether on the ground: they are long, narrow, and of a whitish green: they have no footstalks, they are hairy, and they are irregularly sinuated at the edges, and obtuse at the ends.

The stalk is round, upright, not much branched, and a foot and half high.

The leaves stand irregularly on this, and resemble those from the root: they are oblong, narrow, hairy, and without footstalks: they are in the same manner as the others, sinuated at the edges; but they are sharper at the point.

The flowers grow at the tops of the branches several together, and are small and inconsiderable.

The seed-vessels are very large and conspicuous: they are of an oval figure, flattened, and terminated by a point, and they much resemble the pods of honesty, but that they are of a firmer substance, and are hairy.

The seeds are large and brown.

It is frequent about the vineyards of Italy, and flowers in August.

C. Bauhine calls it *Leucoium alyssoides clypeatum majus*. Dodonæus, *Alyssum Dioscoridis*.

The antients celebrate this plant extremely for

virtues which would be of the greatest importance, if well established. They say it will cure the madness occasioned by the bite of a mad dog. The fresh leaves are to be bruised, and given for this purpose. They affirm, the same manner of giving them mixed with the food, will cure dogs that are going mad, or prevent their going so after the bite. This is asserted by authors in most things worthy credit; and it is worth while to try whether it be true: since, if it prove so, it will furnish us a remedy for the most terrible disorder to which human nature is subject, and for which (with due respect to the great name of Dr. Mead be it spoken) no cure is yet known.

Its lesser virtues are not inconsiderable. Dioscorides says it cures the hiccough immediately, and others recommend it against convulsions in children. The plant grows readily from seed with us, and it well deserves a trial.

2. Yellow Alyssum with swollen capsules.

Alyssum flore flavo siliculis inflatis. *Pl. 39. 16*

The root is long and thick, and spreads at the bottom into many fibres.

The first leaves rise without footstalks, and stand in a little tuft: they are oblong, narrow, and of a dusky green, not at all indented at the edges, but sharp-pointed.

The stalk is round, upright, and branched, and is a foot and a half high.

The

The leaves on this resemble those from the root, but they are smaller: they have no footstalks; they are not at all dented at the edges, and they grow in little clusters from certain parts of the stalks, leaving large naked spaces between.

The flowers stand toward the tops; and they are large, and of a bright yellow: they are supported singly on long footstalks.

The seed-vessel is large, of an oval inverted figure, and not at all compressed, but on the contrary swelled out: the seeds are large and brown.

It is a native of the Greek islands, and flowers in May.

Alpinus calls it *Leucoium luteum utriculato semine*.

3. Shrubby, prickly Alyssum.

Alyssum spinosum fruticosum.

The root is thick and spreading.

The stalk is firm, woody, brown, and divided into many branches.

The leaves grow on these in little clusters, two, three, or four together; and are small, narrow, and oblong: they have no footstalks; they are not at all dented at the edges, and they are of a deep green. Among these there are dispersed a great many sharp and long thorns from the old stalks.

The flowers are small, and of a greenish white: they stand in clusters at the tops of the branches.

The seed-vessels are small, and of a rounded shape; and each is terminated by a long point.

The seeds are small and brown.

It is a native of Spain, and of other warm parts of Europe. It flowers in July.

C. Bauhine calls it *Tblaspi fruticosum spinosum*. Others, *Tblaspi spinosum Hispanicum*; and others, *Leucoium spinosum*.

G E N U S II.

C L Y P E O L A.

THE flower is composed of four petals expanded cross-ways: they are oblong and undivided, and have narrow bottoms longer than the cup. The cup is formed of four oblong leaves, which do not fall off with the flower, but remain with the seed-vessel. The seed-vessel is rounded, compressed, and dented at the extremity: the seeds are small and round.

Linnæus places this among the *tetradynamia filiculosa*; the flower having four longer and two shorter threads, and the seed-vessel being a regular filicula.

1. Hoary Clypeola.

Clypeola canescens. *Pl. 39. 17*

The root is long, slender, white, and furnished with a few fibres.

The first leaves are very small, and they quickly fade: they are short, broadest in the middle, and pointed at the end; and they are of a greyish green, and hoary.

The stalks rise in the centre of this little tuft, and usually there are several together: these partly lean toward the ground, partly stand upright; and they are of a whitish colour, and about five inches high.

The leaves are very small, and have no footstalks: they are of a whitish colour, and are not at all indented at the edges, but pointed at the ends.

The flowers stand at the tops of the stalks, and are very small and yellow.

The seed-vessels are round; and they also stand in little clusters, and make a singular and very pretty appearance: the seeds are small and brown.

It is common on barren grounds in the warmer parts of Europe, and flowers in June.

C. Bauhine calls it *Tblaspi clypeatum serpylli folio*. Columna, *Tontblaspi minimum lanatum*.

2. Long-leaved Clypeola.

Clypeola foliis longioribus acutis. *Pl. 39. 18*

The root is long and thick, and has a few fibres.

The first leaves are numerous, and have no footstalks: they are oblong, narrow, and sharp-pointed, not at all indented, and of a pale green, and somewhat hoary.

The stalks are firm, round, of a reddish colour, not branched, and eight or ten inches high.

The leaves on these are numerous, and placed irregularly: they are long, narrow, sharp-pointed, and of a greyish green, soft to the touch, and a little hairy.

The flowers stand at the tops of the stalks, and are large and white.

The seed-vessels are roundish, but somewhat approaching to oval: the seeds are small and blackish.

It is frequent on the sea-coasts in the warmer parts of Europe, and flowers in July.

C. Bauhine calls it *Tblaspi alyssum dictum maritimum*. Tabernamontanus, *Tblaspi nardoneuse centunculi angustifolio*.

The virtues of these plants are unknown.

THE END of the SIXTEENTH CLASS.

T H E

BRITISH HERBAL.

CLASS XVII.

Plants which have the flower composed of FOUR PETALS, placed one upward, two sideways, and one downward; and the seed-vessel long, and formed of two sides, united by a strait suture above, and another below, containing several ROUND SEEDS.

THESE are the plants which botanic authors call *papilionaceous* and *leguminous*. The first term refers to the flower; the other to the seed-vessel.

The flower is called *papilionaceous*, because it is supposed to represent a butterfly (*papilio*), or other such winged insect, in the state of flying.

The fruit is called *leguminous*, from the Latin word *legumen*, signifying a seed-vessel of this kind, and no other.

We are unhappy in the English language, that we have no particular name or term for this seed-vessel, which, according to the description we have given of it, is as distinct from all others as that of the former class. We have lamented the want of a term to distinguish between the *siliqua* and *siliqua* in the two preceding classes; and we are as much at a loss here, the same English word *pod* being the only name we have for all of them.

As there is a commonly known Latin name, it will be useful to introduce it, and call this seed-vessel a *legume*.

This is a class plainly of Nature's forming, and the plants belonging to it are by the structure of the flower and seed-vessel perfectly distinguished from all others: so that nothing but blindness to the most obvious characters of Nature, or an obstinacy superior to all reason, could induce authors to place any other plants among these, or to separate any of these into other classes. Yet instances of such blindness and such obstinacy are not wanting among these men of science, as will be seen in the descriptions of the several genera. Indeed there seems no error too absurd for some, and I am sorry to say some of name in this study, to have committed.

Linnaeus keeps these plants together: for Nature, in whatever manner she is followed, will direct that; and he has followed her, though oddly: but chusing to establish the character of the class, not upon this plain and obvious structure of the flower and seed-vessel, but on the peculiar arrangement of the threads in the flower, he has introduced among these some which do not belong to them. This is the consequence of his attachment to the lesser parts of flowers instead of the greater; and this has led him here, as elsewhere, to contradict in many particular articles the absolute established characters in his distribution. Species thus frequently contradict the characters of their genus, and genera those of their class. In Nature there is nothing of this: there all is constant, uniform, and regular. It is therefore unhappy for those who have a desire to understand the science, that the system fashion now recommends to their use, directs them, instead of regarding the large and conspicuous parts of flowers, to examine for distinctions of genera, and even of classes, the lesser and more obscure; and by that perplexed course carry themselves out of the plain road of Nature, into uncertainty and innumerable contradictions.

In the present instance, the great inventor of this modern system allows, that the first character of the class is, to have four petals in the flower, enumerating the distinct names by which they are called; yet the very first genus he introduces is *Fumaria*, which has but one.

In the same manner the *polygala*, which by no means belongs to the *leguminous* class, is brought into it by this author. His *Heisteria* also has a flower formed of a single petal, and yet it is introduced among these; the first character of which is to have four: and the same objection lies against his

amorphea.

amorphea. The *borbonia* and *psoralea* also have flowers composed of five petals, though of the papilionaceous form; and these he introduces among the papilionaceous and leguminous plants. This is the consequence of his establishing the characters of the class upon the peculiar disposition of the threads in the flower; and this confusion being the result of that character, shews it to be false. Nature has pointed out a much plainer, which we have taken, and which never fails.

Linnaeus calls these plants *diadelphia*, because the several threads in the flower grow together in two separate assortments.

This is the account of his classical character: but with respect to the proper distinction, established on the number, place, and form of the four petals in the flower, and the structure of the seed-vessel, more is to be observed.

The flower of all plants properly of this class, is formed, as we have observed, of four petals; and these have distinct names, which it is needful the student establish well in his memory, not only for understanding what has been written concerning them, but that he may be able to speak properly of the flower of each. This must be described on most occasions by these its parts; and they are thus named.

The upper petal is called *vexillum*. This is larger than the rest: it rises above the others, and in a manner covers them. It is inserted into the upper edge of the receptacle, and its form is roundish or oblong. It has a kind of ridge or fold in the middle of the upper part, as if rising from some pressure below; and in the lower it falls over the rest in a rounded hollow shape. At the sides there are two prominent parts formed by two hollows behind, which fall upon, and in some degree press the two sides.

The two side-petals are called *ale*. These are placed under the vexillum, and on each side of the flower: they are a regular pair, answering exactly in shape, size, and situation to one another. These are of an oblong form, and are divided each at the base: the upper part of this division is short and inconsiderable, but the lower is very long and slender; and it lies along the cup, which it equals in length; and is infixed to the receptacle.

The lower petal is called the *carina*: this is hollow, compressed, and in some degree of the shape of a boat: it is placed under the vexillum, and between the *ale*. This petal is split like the *ale* at the base, and its lower part runs out in the same manner into a long slip, which goes to the receptacle, and is there inserted. The upper part is interwoven with the upper division of the two *ale*.

If the student in this pleasing science will lay before him the fresh gathered flower of a bean, or some other plant of this class; observe it entire, and examine it when taken to pieces, as he here reads the description of the whole, and of its several parts, he will fix upon his mind in a very familiar and lasting manner the structure of a papilionaceous flower.

The threads from whence Linnaeus forms the character of his class are disposed in this manner. They do not run free, and separate, as on other occasions, the length of the flower; but join themselves together, and form, not one, but two distinct and separate assortments. Of these the lower, which is formed of the bodies of nine of the threads, is a thin membrane, surrounding in great part the rudiment of the fruit; and the upper one, which is formed of the body of only a single one, lies upon it. The nine tops of the threads at the extremity of this body turn up, and imitate the form of the carina of the flower, in which they are enclosed. This body formed of the nine threads has a slit or opening at its top; and the single thread, which lies above, fills up or covers this opening. This has its button at the extremity, and the nine points of the under body have also each its button; so that the whole number is ten.

Such is the structure of this part of the papilionaceous flower; and thus Linnaeus has himself established it, when he explains it as the classical character: yet, in his distribution of the genera under it, he introduces plants which have only six of these points of threads, or buttons, and others which have eight. These therefore contradict the very essential character of his class, as himself has explained it. They are the same genera in which the flower is formed of a single leaf: they are not properly plants of this class, and should not have been introduced into it.

The carina, which is naturally and usually an entire, single petal, is sometimes split in the lower part; and the fissure in some species is continued almost to the tip, in some entirely; but the appearance is the same.

The cup in this class is universally of one structure in the manner of the flower: it is cylindric, hollow, and large at the base, and is divided into five segments at the edge; the under one of which is quite unlike the rest, and longer than any. The upper pair are shorter than the others, and stand open; the other pair are longer and closer.

The regularity and uniformity in Nature in plants truly and properly of the same class, is in no instance seen so clearly as in this. There are very numerous; yet they all agree in these singular characters.

S E R I E S I.

Natives of BRITAIN.

Those of which one or more species are found naturally wild in this country.

G E N U S I.

P E A.

P I S U M.

THE flower is papilionaceous, and consists of four petals: the vexillum is very broad, and is nipp'd at the top with a point, and turned back: the alæ are shorter than the vexillum, of a roundish figure, and convergent; and the carina is compressed, shorter than the alæ, and of the form of a half moon. The cup is formed of a single piece, divided at the rim into five segments; of which the two upper ones are broadest; and it remains with the pod. This is a large and long legume, somewhat depressed on the back; and it contains several round seeds.

The terms used in the character of this and the flowers of the succeeding genera, will be familiarly understood from the description of the flower subjoined for that purpose to the classical character.

DIVISION I. BRITISH SPECIES.

Sea-Pea. *Pisum*.*Pisum multiflorum caule angulato maritimum.*

The root is long and spreading, and penetrates to a great depth: it often runs to five, six, or more feet in length several ways at once; and is of a whitish colour, and sweet taste.

The stalk is slender, weak, angulated, and of a pale green: it usually lies upon the ground, and will grow so to a yard in length.

The leaves are beautifully pinnated: each consists of four or five pairs of oval pinnæ, and is terminated with a branched tendrill instead of an odd leaf: and at the base of the rib on the main-stalk there grow a pair of larger leaves, oblong, and pointed at the ends.

The flowers grow in clusters, eight or ten together, at the extremities of the stalks, and on naked footstalks rising from the bosoms of the leaves: they are smaller than the flowers of the common pea; and are of a pale red, with a tinge of bluish purple in the middle.

The pods are like those of the common pea, but smaller; and each contains eight or ten seeds, like common peas also, but less.

It is a native of our sea-coasts, and flowers in August.

Morison calls it *Pisum spontaneum perenne repens humile*. Ray, *Pisum maritimum*.

The pease of this are as wholesome as those of the common kind, and are often eaten by the poor people in places where they grow in plenty.

This plant had covered the shores of Suffolk unobserved many ages, when, about the present

season two hundred years ago, necessity first shewed them to our countrymen.

The persecutions and barbarities of that horrible period, under the auspices of Mary, were attended with a year of dearth. While the clergy, under a cruel woman, were reviving ill-made laws, and putting what construction they pleased upon the statutes of Richards and of Henrys made under very different circumstances; the poor, who were sacrificed as hereticks in some places, were perishing in others by famine.

Suffolk lay waste more than any other county, and the sea-coast inhabitants were most necessitated of all. Hunger shewed them what they had neglected in their days of plenty; and they were supported by thousands upon the fruit of this sea-pea, then ripening in a prodigious abundance.

The enthusiasts of that time supposed the plants raised by miracle; and our venerable Cambden, unwilling to call in supernatural powers, solves the difficulty, by imagining they rose from pease thrown on the shore from some wrecked vessel. But there needs not even this far-fetched thought: they were not produced that year; but they had been disregarded before. They will grow any where on the most barren beach, penetrating by those long roots to the better soil.

This is properly the wild English pea. We have observed before, that we have in the same manner a wild English cabbage, whose place of growth is also on the sea coast; but neither of these is the source of all the cultivated kinds.

There is an insuperable toughness in the sea-cabbage; and there is a bitterness in these peas, which, though hunger can pass over in coarse mouths, no culture can mend.

D I V I.

DIVISION II. FOREIGN SPECIES.

1. The Common Pea.

Pisum sativum. *Pl. 40. 2.*

The root is composed of several long straggling fibres.

The stalk is weak, slender, branched, and of a pale green: it usually lays hold of sticks, or any thing that can support it, and will thus grow to more than a yard in height: when left unsupported, it trails upon the ground, and is lower.

The leaves are regularly pinnated: each is composed of two or three pairs of pinnæ, which are roundish, approaching to oval, of a tender substance, and of a greyish green colour.

The rib on which these stand is terminated by a tendrill, instead of an odd leaf; and at the base, where it joins the stalk, there is a single broad leaf.

The flowers stand on long footstalks, and are white, with a spot of purple in the middle.

The pods are long and thick, and contain six, eight, or ten pease.

This is wild in the corn-fields of Italy, and flowers in June. With us it is cultivated. And Bauhine and others call it *Pisum hortense*.

The excellency of the seeds of this plant at our tables, have made the gardeners so industrious in its culture, that we see innumerable varieties of it, which are in their way distinguished by particular names, and have been by some described as so many species. But they are all variations made by culture from this single species.

The field-pea, and the garden-pea, are in every respect, but what is owing to culture, the same

plant: and in the same manner the *bastive* and the *rouncival*, with all those other sorts, the names of which are so numerous, and so continually increasing, are to be considered by the botanists as varieties of one and the same original plant.

The following species is truly distinct.

3. Single-flowered Pea with cornered leaves.

Pisum uniflorum foliis angulatis. *Pl. 40. 3.*

The root is divided, spreading, fibrous, and irregular.

The stalks grow to three feet high when supported.

The leaves which stand on the main stalks, at the insertion of the pinnated ones, are of an oblong figure, and cornered at the bottom, where they have usually also two or three indentings.

The pinnated leaves consist each of two or three pairs of small oval pinnæ on a rib, which arises from the bosom of the cornered leaf, and is terminated by a divided tendrill.

The flowers stand singly on long, slender footstalks rising from the bosoms of the leaves; and they are large and white, or sometimes of a pale red, with a deep purple or blue spot in the center.

The pod is large, and the pea very sweet to the taste.

It is wild among the corn-fields in the warmer parts of Europe, and flowers in June.

C. Bauhine calls it *Pisum pulchrum folio angulato*.

The fruits of these several kinds are all of the same quality, wholesome as food, but apt to breed wind.

G E N U S II.

V E T C H L I N G.

L A T H Y R U S.

THE flower is of the papilionaceous form, and is composed of four petals. The vexillum is very large: its sides and top turn back, and it is nipped at the extremity in a heart-fashioned manner. The alæ are short, of the figure of a new moon, and obtuse. The carina is of the length of the alæ, but broader, and splits inwards in the middle. The cup is of the bell-shape, and is divided into five segments at the edge: the two upper of these are shorter, and the single lower segment is longer than the alæ. The pod is very long, of a cylindric figure, and compressed and pointed: the seeds are round, but a little angulated. The stalks are flattened, and edged with membranes; and the leaves are composed only of one pair of pinnæ.

Linnaeus places this among the *diadelphia decandria*; the threads being in two bodies, nine in one, and one in another. But he joins with it three other genera, distinguished very evidently by Nature. These are the *aphaca*, *nissolia*, and *chymenum*, to be described hereafter: they agree in the minute parts, by which this author formed his characters, with the *lathyrus*, but not in others.

DIVISION I. BRITISH SPECIES.

1. Great, broad-leaved Vetchling.

Lathyrus major latifolius. *Pl. 40. 4.*

The root is long, slender, and furnished with a great number of crooked, irregular fibres, penetrating a great way into the earth, and supporting itself very firmly.

The stalks are numerous, slender, and weak; and, if they meet with nothing to support them, trail on the ground; but, when they have bushes for climbing, they grow to four feet high: they are flattened, and as it were jointed.

The leaves grow two together, and are long, broad, and ribbed: there grow two slender membranes,

branches, or little leaves, at their insertion on the stalk; and they are of a greyish green colour.

The tendrils for climbing rise from the center of the two leaves, as from the end of the rib in the pea kind.

The flowers are large, and of a bright and beautiful red, with a deeper tinge in the middle: they are supported several together on long footstalks.

The pod is long and slender, and the seeds are numerous and small.

It is found in woods, principally in our northern counties, and flowers in June.

C. Bauhine calls it *Lathyrus latifolius*. Others, *Lathyrus flore rubro speciosiore*. Our English writers call it *Pease everlasting*: but that is a very improper name, it not being of the pea kind.

2. Great, narrow-leaved Vetchling.

Lathyrus angustifolius major. Pl. 40. 5

The root is composed of numerous, slender, long fibres, and takes great hold in the ground.

The stalks are numerous, angular, and weak: they are of a pale green, edged sharply, and jointed; and, when they have support, will rise to four feet in height.

The leaves are placed at distances, and two always stand together at the end of a short kind of rib, with a tendril between them: they are narrow, ribbed, sharp-pointed, and of a pale green.

The flowers are small, and of a mixed colour, partly white, and partly red. The red is in various degrees, and sometimes there is scarce any.

The pods are thicker than in the former species, and the seeds are round and large.

It is found among bushes in many parts of the kingdom, and flowers in August.

C. Bauhine calls it *Lathyrus sylvestris major*. J. Bauhine, *Lathyrus majoris species flore rubente & albido minore Dumetorum sive Germanicus*.

3. Yellow Vetchling. Pl. 40. 6

Lathyrus sylvestris luteus vulgaris.

The root is long, slender, and full of fibres.

The stalk is angulated, weak, and hangs about

in an irregular form, not upright, nor quite trailing on the ground: it is of a pale green, and edged.

The leaves stand at distances, and are each composed of a single pair, supported on a kind of short rib, and having a tendril shooting out from their center. At the insertion of the rib or stalk which supports them, there are also a pair of short leaves.

The flowers are placed on short footstalks, four or five together, rising from the bosoms of the leaves: they are large, and of a pale yellow.

The pods are slender: the seeds are small, roundish, and black.

It is common among our bushes, and in pastures, and flowers in June.

C. Bauhine calls it *Lathyrus sylvestris luteus foliis cicie*: a name very inexpressive, for the leaves do not at all answer that description. Others call it *Lathyrus luteus sylvestris*.

4. Rough-podded Vetchling.

Lathyrus filiqua hirsuta.

The root is composed of numerous, slender, tough, and irregular fibres.

The stalks are weak and angulated, and they support themselves irregularly to the height of a foot and half, or they will grow much taller when they can climb.

The leaves are narrow, hard, and ribbed: they stand two together, with a tendril at the end.

The flowers are small, and of a mixed red and white colour: they stand several together on very long, slender footstalks.

The pods are an inch and half long, and considerably broad: the seeds are small, blackish, and nearly round.

It is found on the edges of ploughed fields in our midland counties, and flowers in August.

C. Bauhine calls it *Lathyrus angustifolius filiqua hirsuta*.

DIVISION II. FOREIGN SPECIES.

1. Garden Vetchling.

Lathyrus sativus flore purpureo. Pl. 40. 7

The root is long, slender, and furnished with many fibres.

The stalks are numerous, thick, and ribbed, of a pale green, and very much branched: when supported by sticks, they will rise to five feet high.

The leaves are placed two together on a ribbed footstalk, and that is terminated by a tendril, which takes its rise between them.

There is a broad film on each side at the insertion of the rib to the stalk.

The flowers are large and purple: they stand on long, slender footstalks, usually one on each, but sometimes two.

The pod is short, thick, and ribbed, and furrowed on the back: the seeds are very large, and roundish.

It is a native of the East, and is cultivated in

gardens and fields in Germany, and some parts of Italy. It flowers in July, and the seeds ripen in August.

C. Bauhine calls it *Lathyrus sativus flore purpureo*. Dodonæus, *Aracus sive cicera*.

2. Pease Earthwort. Pl. 40. 8

Lathyrus foliis ovatis radice tuberosa.

The root is thick, oblong, and irregularly tuberos: frequently these thick knobs are near the surface, but at other times they are fastened to the ends of the fibres, and lie at a great depth: they are brown on the surface, white within, and of a sweet and very pleasant taste.

The stalks are edged, weak, and three or four feet long: they trail upon the ground, or support themselves among the bushes.

The leaves grow two together, as in the others; but they are short and broad, of an oval figure, and obtuse at the ends.

The flowers grow in clusters on long footstalks rising from the bosoms of the leaves, and are of a bright purple.

The seed-vessel is long and slender, and the seeds are numerous and roundish.

It is frequent among bushes in Germany, and many other parts of Europe, where the roots are dug for the table. It flowers in July.

C. Bauhine calls it *Lathyrus arvensis repens tuberosus*.

5. Strip'd yellow-flowered Vetchling.

Lathyrus flore flavo striato. Pl. 40. 9

The root is long and thick; divided into many parts, and furnished with numerous irregular fibres.

The stalks are slender, weak, and flat; edged by a membrane, and of a pale green colour.

The leaves grow, as in the others, two together, with a tendril rising from between them: they are broad, short, and sharp-pointed, and of a fresh green.

The flowers grow three or four together on slender footstalks, and are of a beautiful yellow, striped with purple.

The pods are long and slender, and the seeds are roundish and small.

It is a native of Spain, and flowers in August.

Morison calls it *Lathyrus Beticus flore luteo*. It is one of the most beautiful of the *lathyrus* kind.

4. Vetchling called Sweet Pea.

Lathyrus hirsutus magno flore.

The root is composed of several thick fibres, with smaller growing from them.

The stalks are flattened and weak, but considerably thick, and of a pale green.

The leaves are very large, and of a pale green, soft to the touch, and a little hairy: they grow two together, and have a tendril rising between them.

The flowers are large, and of a mixed red, and are very sweet-scented.

The seed-vessel is large and hairy, and the seeds are roundish and brown.

It is a native of Africa, and flowers in July. It is kept in our gardens for its beauty and fragrance, but very improperly called a pea.

C. Bauhine calls it *Lathyrus siculus*.

5. Vetchling, called Tangier Pea.

Lathyrus biflorus floribus ruberrimis. Pl. 40. 10

The root is long, divided, and furnished with numerous, thick, and crooked fibres.

The stalks are thick, but weak, and moderately branched: they are angulated, and of a pale greyish green.

The leaves grow, as in the others, two together, with a tendril between them: they are long, narrow, and sharp-pointed, and are of a pale green.

The flowers grow upon very long footstalks rising from the bosoms of the leaves, two on each; and they are large, and of a beautiful red.

The pods are slender, and the seeds are roundish.

It is a native of Africa, but flowers very well in our gardens.

Morison calls it *Lathyrus tingitanus siliquis orobi flore amplo ruberrimo*. Our gardeners, *Tangier pea*.

G E N U S III.

CHICHLING.

C L Y M E N U M.

THE flower is papilionaceous, and is composed of four petals. The vexillum is large, dented at the extremity, and turned back at the top and at the edges. The alæ are short, hooked, and obtuse, and the carina is broad, and split in the middle. The cup is formed of a single leaf, narrow at the bottom, wide at the mouth, and divided into five segments; the two upper ones short, and the lower one very long. The pod is long, and flattened at top. The leaves grow in a pinnated manner, several pairs together.

Linnaeus places this among the *diadelphia decandria*; the threads being formed into two bodies, nine into one, and a single one in the other.

That author joins this genus and the *lathyrus*, though Nature have thus plainly distinguished them by the composition of the leaves.

It is an invariable character, and can never be mistaken. It is the more needful, as the plants of each genus are numerous; and of the more authority, as those of the present arrangement have been generally distinguished by this separate name.

DIVISION I. BRITISH SPECIES.

1. Variegated wild Chichling. Pl. 40. 11

Clymenum sylvestre flore variegato.

The root is long and slender, divided into several parts, and furnished with numerous, thick, and spreading fibres.

The stalk is flattened, and edged, of a pale greyish green, weak, and branched: it hangs irregularly, or is supported by the stouter plants or bushes; and in this manner grows to a foot and half or more in length.

The leaves are placed irregularly, and each is composed

composed of three or four pairs of pinnæ regularly placed, with a tendril growing from the end.

The pinnæ are oblong, narrow, and sharp-pointed, of a deep green, and not at all indented at the edges.

The flowers are placed on long, slender pedicels rising from the bosoms of the leaves, several of them standing in a row one over another on each pedicle; and they are large, and of a mixed colour, partly red and partly blue.

DIVISION II. FOREIGN SPECIES.

Long-leaved Clymenum.

Clymenum foliis longioribus. *Pl. 10. 12*

The root is composed of numerous slender fibres, connected to a small head.

The stalk is weak, flattened, and of a pale green, very slightly edged; and, when tolerably supported, it will grow to four feet high.

The leaves stand thick upon it, and are pinnated: each is composed of three or four pairs of very fine, long, and narrow pinnæ; which are sharp pointed, not at all dentated at the edges,

The pods are large and slender, and the seeds are roundish.

We have it in the neighbourhood of London, and many other places among bushes. It flowers in July.

Ray calls it *Vicia lathyrisformis*, five *vicia lathyroides nostras*. Merret, *Lathyrus ex ceruleo & rubro mixtus*. It is the only species of *Clymenum* we have wild.

and of a beautiful pale green: the rib on which these stand is terminated by a long fine tendril.

The flowers grow from the bosoms of the leaves on long slender footstalks; and they are large and purple.

The seed-vessel is long and slender, and the seeds are roundish and brown.

It is a native of Italy, and flowers in July.

Morison calls it *Lathyrus angustifolius leptomacrolobus semine rotundo*. Others, *Clymenum lathyrum*.

GENUS IV.

YELLOW VETCHLING.

A P H A C A.

THE flower is of the papilionaceous form, and is composed of four petals. The vexillum is large, nipp'd at the extremity, and turned back at the top and sides. The alæ are short, crooked, and obtuse. The carina is broad, of a half-round shape, and split in the middle. The cup is of a bell-like shape, and is divided into five irregular segments at the edge: the two upper ones are short, and the single under one is very long. The pod is oblong and rounded. The leaves are placed in pairs upon the stalk, and are of a three-cornered shape.

This is a very singular genus: there is but one known species of it, and that is a native of Britain. We are unhappy in wanting an English general name for it, for that of *yellow vetchling* seems to refer to another genus. As I have a dislike to inventing new names, I shall advise the student to use the Latin one *aphaca*.

Linnæus places this among the *diadelphia decandria*; the stamina being ten, and formed into parcels, nine in one, and a single one in the other: but he confounds it, among several other genera, with the lathyrus. He does not allow the leaves of this plant to be properly such, but only a kind of stipulæ, such as others of the pea and lathyrus kind have upon the stalk, at the places where the proper leaves rise. But this is a forced thought. The leaves are as properly and perfectly leaves as those of any other plant; and their great singularity perfectly distinguishes the genus from all others of the papilionaceous leguminous class.

Yellow Vetchling.

Aphaca. *Pl. 40. 13*

The root is long, slender, and furnished with many fibres.

The stalk rises usually single, and frequently is not at all branched: it is round, almost upright, and not more than a foot high.

The leaves are numerous, and they are very singular: they are of a triangular figure, broad, sharp-pointed, and terminated by two points at the corners of the base: they stand two together at the joints, and are of a pale and somewhat yellowish green. From the bosoms of these there

rise tendrils; but the plant is low, and tolerably strong; so that it wants them less than many other kinds.

The flowers are supported singly on slender footstalks, and they are moderately large and yellow.

The pod is oblong, and the seeds are roundish. It is found in many parts of England on dry hilly pastures, and flowers in August.

C. Bauhine calls it *Vicia lutea foliis convolvuli minoris*. Others, *Aphaca*.

The seeds of the *aphaca* are said to be useful against epileptic disorders; but there is no good authority for crediting it.

GENUS

GENUS V.

VETCH.

V I C I A.

THE flower is composed of four petals, and is of the papilionaceous kind. The vexillum is of an oval figure, and has a very long bottom surrounding the rudiment of the fruit: the top of it is nipped and pointed, the sides turn back, and there is a line of an elevated form running down the whole length of the back of it. The alæ are oblong, straight, and somewhat heart-fashioned; and they have long bottoms. The carina is shorter than the alæ: it has also an oblong bottom, which is divided into two parts. The pod is long, and of a tough substance, and is terminated by a point: the seeds are round. The leaves are pinnated, and composed of numerous pairs; and they have not the bluish colour, which is almost universal among the pea kind, and common to most of the lathyrus.

Linnæus places this among the *diadelphia decandria*; the threads in the flower being ten, in two assortments. But he joins with it the bean, among some other equally different plants.

In vindication of this he says, that, having repeatedly examined and compared the flowers of the *vetch* and *bean*, there appeared to him no essential difference: so that, upon their similitude, he makes the bean a species of *vetch*, not a distinct genus.

That difference, which is not seen in the flower, is evident in the pod and seeds of these plants: and in Nature no two genera of this class are more perfectly separated.

This author says, that, in the leguminous tribe, the shape of the fruit alone is not to determine a genus to be distinct. But these are arbitrary words. Fancy may dictate laws in this case, but Nature has established none. It is certain that the difference of the fruit is a sufficient mark for the distinction of genera among the leguminous plants; and these are properly separate genera: it is therefore we do not include the bean among the *vetch* kind, but shall treat only of *vetches* properly so called under this head.

DIVISION I. BRITISH SPECIES.

1. The Common Tare. *Pl. 40. 14*

Vicia vulgaris sativa semine nigricante.

The root is composed of numerous, long, thick, and irregular fibres.

The stalks are numerous, round, weak, and of a pale green: they stand irregularly, and are scarce able to keep themselves up without supports.

The leaves are very numerous, long, and narrow: they are pinnated, but without an odd leaf at the end, a tendril growing in its place: each is composed of six or eight pairs of pinnæ; and they are of a dusky green, and somewhat hairy.

The flowers stand in the bosoms of the leaves, usually two together, supported on very short footstalks: they are large, and of a mix'd red and purple colour.

The pods are large, long, and pointed: they stand usually pointing upwards: the seeds are numerous, round, and naturally blackish.

It is common wild in the corn-fields of Italy, and is in our country also a native, but not so common. I have seen it where there were no marks of the seed ever having been brought to the place, in our northern counties; and it is also frequent wild in Ireland.

C. Bauhine calls it *Vicia vulgaris sativa semine nigro*.

He distinguishes as a distinct species the *vetch* with whitish seeds, and many authors follow him; but this is only a variety.

2. Great Bush-Vetch. *Pl. 40. 15*

Vicia pinnis ovatis floribus numerosis.

The root is long, slender, and furnished with many thick and straggling fibres.

The stalk is slender, weak, and of a pale green:

it is not able to support itself without climbing; but, when bushes are near it, will rise to four or five feet in height.

The leaves are numerous, and placed irregularly: they are very beautifully pinnated, each being composed of seven, eight, or more pairs of pinnæ, which are of an oval form, and fresh green colour. A tendril stands in the place of an odd leaf at the end of each rib.

The flowers are large, and of a beautiful bright red, striped with a deeper red, or with a pale purple: they stand in clusters, six or more together, and have short footstalks.

The pods are small: they are short and compressed; and the seeds are blackish, and nearly round.

It is common in thickets, and flowers in July. C. Bauhine calls it *Vicia maxima Dunetorum*. Others, *Vicia sepium perennis*. It is sometimes seen with white flowers, but very rarely.

3. Great Bush-Vetch with short pinnæ. *Pl. 40. 16*

Vicia pinnis brevioribus obtusis floribus numerosis.

The root is composed of numerous, long, thick fibres.

The stalk is weak, but very long: when there is a sufficient support of bushes, it often grows to six feet.

The leaves are pinnated, and each has eight or more pairs: these are short, obtuse, and of a deep green colour.

The flowers grow in tufts with short footstalks, and are throughout of a dull purplish colour.

The pods are short and thick; each contains about six seeds, which very much resemble those of the common tare.

It is found in thickets and among bushes in our northern counties; but it is not common.

Ray

Ray calls it *Vicia folio subrotundo brevi obtuso mucronato, pediculo brevi infidente flore vicia dumerum*.

4. Strangle Tare. *Pl. 40. 16*

Vicia pinnis angustis flore purpureo.

The root is long, slender, and divided, and has numerous straggling fibres.

The stalk is weak, slender, and green; and, when it meets support, will grow to the height of two feet, but is never much branched.

The leaves are numerous and pinnate: each is composed of three or four pairs of pinnæ, rarely more; and these are oblong, narrow, and obtuse at the ends: they are of a dusky green colour; and at the ends, instead of an odd leaf, there stands a large divided tendrill.

The flowers are small, but of a lively and beautiful red, with a white spot in the centre: they grow usually two together, and have short footstalks in the bosoms of the leaves. When the soil is very rich, three will grow together; and, when it is poor, there will usually be only one in a place; but two is the most frequent number.

The pods are slender and long, and stand pointing upwards: the seeds are eight or ten in each, and they are sometimes greenish, sometimes black, and sometimes spotted.

It is common among bushes, and in corn-fields, and flowers in July.

C. Bauhine calls it *Vicia semine rotundo nigro*. Others, *Aracus*, and *Cracca major*.

5. Red-flowered Vetch, with small black seeds.

Vicia flore ruberrimo semine parvo nigro.

The root is composed of a few large fibres.

The stalk is slender, weak, and of a pale green; but, when supported, it grows to three feet in height.

The leaves are pinnate: each is composed of about four pairs of pinnæ, which are oblong, broadest at the base, and small at the extremity, and of a faint green.

The flowers grow usually two together from the bosoms of the leaves: they are large, and of an extremely bright red.

The pods are very long and slender; and, when they are ripe, are black: the seeds also are black: they are round, and about ten are contained in each pod.

DIVISION II. FOREIGN SPECIES.

Broad podded Vetch. *Pl. 40. 19*

Vicia pinnis angustis siliquis latis.

The root is long, slender, divided into a few parts, and furnished with some straggling fibres.

The leaves are pinnate, and stand at distances on the stalk: each is composed of four or five pair of very narrow pinnæ, and a simple

It is not uncommon in our midland counties among hedges. It flowers in August.

C. Bauhine calls it *Vicia vulgaris acutiore folio semine parvo nigro*. Ray, *Vicia sylvestris flore ruberrimo siliqua longa nigra*. The flowers are sometimes white.

6. Yellow Vetch with rough pods.

Vicia flore flavo siliquis hirsutis. Pl. 40. 17

The root is long, thick, divided into several parts, and furnished with numerous fibres.

The stalk is round, thicker than in most of the vetch kind, and of a pale green.

The leaves stand irregularly on it, and they are very beautifully pinnate, each being composed of ten or more pairs of pinnæ: these are oblong, narrow, and sharp-pointed, and of a dusky green.

The end of the rib in this, as in the other species, is furnished with a tendrill for supporting the plant in the stead of an odd leaf.

The flowers stand in an irregular manner in the bosoms of the leaves, and are large, and of a pale yellow.

The pods are short, thick, hairy, and placed upright: the seeds are few, and roundish.

It is found in our southern counties, and flowers in July.

C. Bauhine calls it *Vicia sylvestris lutea siliqua hirsuta*.

7. Little, early, red-flowered Vetch.

Vicia præcox pumila flore rubente. Pl. 40. 10

The root is composed of many slender fibres.

The stalk is round, weak, slender, of a bluish green; and, when supported, is about a foot high.

The leaves are irregularly pinnate: each is composed of three or four pairs of pinnæ, of which one or more are naturally wanting; and these are of an oblong, oval figure, and of a dusky green.

The flowers stand singly on long, slender footstalks, and are of a beautiful purple: they are small, and but of short continuance.

The pod is very slender, and moderately long; and the seeds are small and angulated.

It is found in barren hilly pastures, but not common, and flowers in April.

Ray calls it *Vicia minima præcox Parisiensium*.

tendrill stands in the place of an odd leaf at the end.

The flowers are small, and of a deep purple.

The pods are short, broad, and smooth. It is a native of the south of France, and flowers in June.

Magnol calls it *Vicia angustifolia purpureo violacea siliqua lata glabra*.

GENUS

GENUS VI.

TINE TARE.

CRACCA.

THE flower is papilionaceous, and composed of four petals. The vexillum is of an oval form, and has a long hollowed bottom. The alæ are strait, of an oblong form, a little heart-fashioned, and shorter than the vexillum. The carina is flattened, and half round, and is smaller than the alæ. The pods are placed on very long and slender footstalks; and there always grow a number of the flowers and pods together, and they hang downwards.

Linnaeus places this among the *diadelphia decandria*; the threads in the flower being ten, and collected into two parcels, nine in one, and a single one in the other.

This author takes the established name *cracca* from this genus; and refers it to the *vicia* or *tare*. The flowers of these plants resemble one another; but we have here shewn sufficient distinction for a general character; and it is extremely needful to separate these and the *sares*, the species under each of those genera being numerous, and their distinctions less obvious than in many other kinds.

DIVISION I. BRITISH SPECIES.

1. Small Tine Tare. *Pl. 41. 1*

Cracca minor siliquis pluribus hirsutis.

The root is small, and hung with numerous irregular fibres.

The stalks are numerous, weak, and of a pale green: they are not much branched, and they are hardly a foot high.

The leaves are regularly pinnate: each is composed of five or six pairs of pinnæ, which are short, broad, sharp-pointed, and of a faint green.

At the end of the rib in each leaf there grows a small tendrill.

The flowers grow four, five, or more together, upon long and slender footstalks, which rise from the bosoms of the leaves: they are small, and of a mixed blue and white colour.

The pods are broad and short: they are of a pale green, somewhat hairy, and, when thoroughly ripe, whitish: the seeds are small and round.

It is very common in corn-fields, and under hedges. It flowers in June.

C. Bauhine calls it *Vicia segetum cum siliquis plurimis hirsutis*.

2. Smooth-podded Tine Tare.

Cracca siliquis oblongis glabris. Pl. 41. 2

The root is small, oblong, divided into two or three parts, and furnished with several fibres.

The stalks are numerous, weak, branched, a foot high, and of a pale green.

The leaves are small and pinnate, and they have long tendrills: each is composed of four or five pairs of oblong pinnæ, with the tendrill at the end.

The flowers grow on long, slender footstalks, two or three on each; and they are of a pale blue and white colour, and small.

The pods are short and smooth, and the seeds are small and round.

The whole plant often lies upon the ground entangling every little herb near it.

It is common in corn-fields especially where the soil is damp, and flowers in June.

C. Bauhine calls it *Vicia segetum siliquis singulis*.

N° XXIX.

laribus glabris. But in this he has named it ill: the pods are fewer than in the preceding species, but they seldom stand singly: two or three together is the most natural manner of growth.

3. Tufted Tine Tare.

Cracca multiflora spicata. Pl. 41. 3

The root is composed of numerous small fibres. The stalk is round, weak, of a pale green, and branched.

The leaves are pinnate, long, of a pale green, and terminated by a tendrill in the place of an odd leaf: each is composed of about eight pairs of pinnæ; and these are oblong, narrow, and pointed at the end.

The flowers are single, and of a deep beautiful purple: they stand in long spikes, and are supported on long, slender pedicles: but they have a drooping position.

The pods are long and slender, and the seeds are small and round.

It is common in hedges, and flowers in July.

C. Bauhine call it *Vicia multiflora*. Others, *Aracus*, and *Cracca*. We call it *Tufted vetches*; but it is not strictly of the vetch kind.

4. Great tufted Tine Tare.

Cracca multiflora spicata maxima. Pl. 41. 4

The root is long, slender, and furnished with numerous fibres.

The stalk is round, and of a pale whitish green, much thicker than in the others of this kind, but not of strength to support itself: it climbs among bushes, and grows to five feet high.

The leaves are very beautiful: they are pinnate in a regular and elegant manner, and each has twelve or more pairs of pinnæ: these are of an oval form, obtuse at the end, of a faint green, and not divided at all at the edges. A tendrill terminates the rib instead of an odd pinna; and there generally are shoots for young branches all the way up the plant in their bosoms.

The flowers stand in long spikes, and are very beautiful: they are of a pale blue, streaked with a very deep blue in strong lines.

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The pods are long and slender, and the seeds are small and round.

We have this elegant plant in woods and thickets in many parts of England, though not common like the former. It flowers in August.

Ray calls it *Vicia sylvatica multiflora maxima*. The seeds of these are eaten by wild birds, and

would serve as *tares*, and other of the pulse kind, for the feeding some domestic animals: they are not cultivated for such purpose, not because they are not worthy, but because others are in use. Many of these are better bearers, and would be more serviceable than the *common tare*, or other usual kinds.

DIVISION II. FOREIGN SPECIES.

Thick-podded, broad-leaved Cracca.

Cracca latifolia filiquis crassius. *Michx.*

The root is thick, long, and furnished with numerous fibres.

The stalks are many, firm, of a dusky colour, and branched.

The leaves are beautifully pinnated: they are composed each of eight or more pairs of pinnae; and these are broad, short, very obtuse, and have a kind of thread at their end, which is a continuation of the middle rib beyond the verge of the leaf.

The whole pinnated leaf is terminated by a slight tendril; but this is not constant, nor is it so important to this shrubby kind as to those which are weaker.

The flowers are small and purple: they stand in long spikes, in the manner of those of the common English many-flowered kind; and they have a long, general footstalk, and each its short and small separate one, by which it is connected to that.

The pods are broad, short, and smooth: the seeds are round, large, and not numerous.

It is a native of the East.

Burman calls it *Vicia multiflora filiqua brevior*.

G E N U S VII.

B E A N.

F A B A.

THE flower is papilionaceous, and regularly formed of four petals. The vexillum is large, oval, dentated with a point at the top, and turned back at the sides; and it has a long hollow bottom. The alae are shorter than the vexillum; and are strait, and a little heart-fashioned. The carina is shorter than the alae, and is flattened, and half round. The cup is composed of a single tubular piece, divided into five irregular segments at the edge, the two upper ones shorter than the rest, and convergent. The pod is very large, thick, and somewhat flattened: the seeds are few, large, and flattened also. The stalks are square; and the leaves, though pinnated, have no tendrils.

Linnæus places this among the *diadelphia decandria*; the threads in the flower being ten, and formed into two assortments, nine in one, and the other single.

This author takes away the name and generic distinction of this kind, and makes the bean to be a species of vetch.

We have observed already, that the form of the seed-vessel and seeds is a sufficient distinction for the bean from the vetch as a genus; and the shape of the stalk, and structure of the leaves, confirms that distinction, and renders it perfectly obvious.

DIVISION I. BRITISH SPECIES.

1. The Horse-Bean. *Michx.*

Faba vulgaris fruticosa minor.

The root is long, slender, and furnished with a great number of fibres.

The stalk is square, upright, thick, hollow, not at all branched, and of a pale green.

The leaves are very large, and pinnated: each is composed of three or four pairs of pinnae, with an odd one at the end.

In the pinnated leaves of all the preceding kinds, a tendril has the place of this single or odd pinna, which is the provision of nature for holding them up by climbing, the plants themselves being weak; but in the bean this assistance being not necessary, the leaves are completed without it.

The flowers rise in the bosoms of the leaves, and are supported on short footstalks: they are white, with a large quantity of black, by way of variegation, and many black streaks or lines:

upon the whole, they are beautiful, and they have a very fragrant smell.

The pods are very large, and the seeds also large.

We find the *horse-bean* very small in places remote from all habitations, which seems to declare it a native of our country. But, in respect of plants whose utility has rendered them for ages the subjects of the gardener's and husbandman's labours, it is hard to say with certainty, whether any plant of them we see with a wild aspect have not arisen from seeds casually dropped. Those who do not allow the bean to be a native wild plant with us, know not what other country to assign as its original place of growth; for in most others the case stands exactly as with us. Probably it is common to many places, Nature having made things, so useful in most instances, in a manner universal.

C. Bauhine calls it *Faba*, and *Faba minor*, *fruticosa Equina*. Others, *Faba minor*, *sylvestris*, and *communis*. Authors

Authors describe the *garden-bean* under the name of *Faba bartenensis*, as if a species distinct from this: and upon a like principle we see that *garden-bean* itself divided into innumerable other kinds. The truth is, all these are the offspring of industry and good culture: the *garden-bean* is no more than the *horse-bean*, improved from time to time by careful management; and all the others are again the same kind of variations from that.

In a treatise of gardening, it would be proper to enumerate and distinguish these several varieties: but the student in botany is to know there is but one species of *bean*. The plant is the same in stalk, leaf, flower, and fruit, the size and the degree of flatness only excepted; and its uses and qualities are the same, whether it be taken from the field or the garden, or whether it flower in May or August.

The *bean*, like the pea, is a very wholesome food; but it also serves the purposes of medicine.

The whole *bean*, ground to flour with its shell, and taken internally by way of medicine, is found to be an astringent of a useful kind. Diarrhæas of the worst sort, and even dysenteries, have been cured by it. It is also good against the diabetes.

A pultice of *bean* flour externally is used in swellings; and the inside of the fresh shells rubbed on warts will take them off. The same method of using them will also take spots off the face.

Many have written against *beans*, declaring them flatulent, difficult of digestion, and bad for the head: but nothing can be more idle than this learned preaching against a pulse in common use as food for ourselves and our cattle, and found upon repeated experience wholesome to both.

Pythagoras is quoted with a most reverend ignorance by those who write against the eating of them. He indeed directed his pupils to abstain from *beans*; but this not because they were bad for the head, as Solinus thinks; nor because the souls of the dead passed into them, as Pliny dreamed. Plutarch might have set those later commentators right, who have made so many wild conjectures about this short precept, the meaning of which was, *Meddle not in party-matters*. The antients elected their officers by ballot, and beans were the balls.

It is supposed the bean of the antients was not the same with ours, and many guesses as wild and as unnatural have been made on that head as the former. The reason of the supposition is, that they always speak of the dried *bean* as being round. The art of our gardeners has flattened out the *Wind-for bean*: they lived before this improvement of the *bean* was introduced; and we see in the dry small *beans* of the same kind, a shape which in general terms might not absurdly or unnaturally be called round. The plant was beyond doubt the same.

G E N U S VIII.

L I Q U O R I C E.

G L Y C Y R R H I Z A.

THE flower is papilionaceous, and composed of four petals. The vexillum is oblong, strait, and smallest at the top. The alae are oblong, and of a plain, simple structure. The carina is sharp, and is split all the way up; and it is of the same size with the alae. The cup is formed of a single hollow piece, divided rudely into two lips at the edge: the upper lip is broke into three parts; of which the middle one is shorter and broader than the others, and is split at the end: the lower lip is strait, narrow, and of a simple structure. The pod is oblong, compressed, and acute: the seeds are few, and of a kidney-like shape.

Linnæus places this among the *diadelphia decandria*; the threads in the flower being ten, and arranged in two parcels, nine in one, and a single one in the other.

DIVISION I. BRITISH SPECIES.

Common Liquorice. *Michx.*

Glycyrrhiza vulgaris filiquis glabris.

The root is very long and creeping; of the thickness of a finger, and of a tender, juicy substance: it is of a dusky brown on the outside, of a fine yellow within, and of a sweet taste.

The stalk is round, firm, upright, not much branched, and four feet high.

The leaves are long, large, and regularly pinnated: each is composed of eight or more pairs of pinnae; and these are oblong, narrow, and pointed at the ends, and of a pale green: they resemble the leaves of the ash-tree, but are smaller.

The flowers grow on long and slender footstalks rising from the bosoms of the leaves, several on each: they are small and bluish.

The pods are oblong, slender, and of a pale green: the seeds are large and brown.

It is said to have been found wild in the northern parts of the kingdom: but, like other plants frequently and commonly cultivated in our fields, it is not easy to say whether it be truly a native or not: probably enough it may be so; for it is evidently wild in other countries, in which the degrees of heat and cold are about equal to this.

It flowers in September; but with us it does not produce its flowers and fruit so freely as in some other places. Indeed Nature has made so good a provision for the multiplying this plant by root, that it no where ripens its seeds in such abundance as those that can only be propagated that way.

C. Bauhine

C. Bauhine calls it *Glycyrrhiza siliquesa* five Germanica.

It was originally cultivated in Germany, and in a manner all Europe supplied thence with the root; afterwards it was raised in Spain, and now in England there is a great deal propagated; and it is so valuable a commodity, that the husbandmen would find it extremely worth their while to introduce its culture in many other parts of the kingdom.

Liquorice is a celebrated medicine; and it deserves all that has been written of it. We see it principally in three forms; the fresh root, the dried root, and what is called the juice. This last is a strong decoction of the root boiled to a firm consistence. The fresh root is in general the best for use.

It is excellent to take off the acrimony of the humours on many occasions. In coughs it is a sovereign remedy, approved by a long expe-

rience; and it promotes expectoration at the same time that it thickens the juices. It is also good in nephritic complaints from the same principle.

The ancients looked on it as a remedy both against thirst and hunger. It will take off the common sensations of both for a time; but it is an error to suppose it can supply the place of food and drink in their effects.

It was directed by the old physicians to be sucked frequently by persons in dropsies, to abate their thirst, and prevent their drinking too often; and this is singular, that whereas the sweet of sugar, in whatever form, makes persons thirsty afterwards, the sweet of *liquorice*, which is at least equal to it, does not. This is particular; but experiment will at any time shew it to be perfectly true.

A kind of beer may be brewed with *liquorice* in the place of malt, and it will have a considerable strength and an agreeable flavour.

DIVISION II. FOREIGN SPECIES.

Echinated *Liquorice*. *Pl. 410*

Glycyrrhiza siliquis conglobatis echinatis.

The root is long, and very thick, and does not spread in the manner of the other. The outer bark is of a deep brown colour, the inner substance is of a dusky yellow; and the taste is sweet, as in the common *liquorice*, but more mawkish and less agreeable: if the bark be chewed with it, there is also a considerable bitterness.

The stalk is round, firm, hairy, upright, and a yard high.

The leaves stand irregularly: they are numerous, and pinnated: each is composed of eight or ten pairs of pinnæ, which are narrow, oblong, of a dusky green, somewhat hairy, and pointed at the ends.

The flowers grow in round heads, supported on long, slender footstalks rising from the bo-

soms of the leaves: they are small and blue: the whole tuft together is conspicuous.

The seed-vessels are short and flattened, of a pale green, and hairy: they follow the flowers in the same clustered manner; and the whole bunch of them is of the bigness of a small walnut.

The seeds are large, kidney-shaped, and brown.

It is a native of Tartary, and is common also to some other parts of Europe. It flowers in August.

C. Bauhine calls it *Glycyrrhiza capite echinato*. Our people call it the *Hedge-hog liquorice*.

Its virtues are the same with those of the former; but it is less pleasant, and they are inferior; wherefore there can never be any temptation to use it, while the right kind is so universal, cheap, and common.

GENUS IX.

WOOD-VETCH.

OROBUS.

THE flower is papilionaceous, and composed of four petals. The vexillum is heart-fashioned, and at the top terminates in a half cylinder, which is longer than the cup at the bottom. The alæ are oblong, and rise upwards, and converge together: they are nearly as long as the vexillum. The carina turns up, and is divided underneath: the edges are compressed together, and the belly is swelled. The cup is formed of a single piece, and is tubular, and very slightly indented in five places at the edge. The pod is long, slender, and rounded, and it turns up at the top, where it is sharp-pointed: the seeds are numerous and round. The leaves are pinnated; but they have no tendrils. Linnaeus places this among the *diadelphia decandria*; the threads being ten, nine in one body, and one singly.

DIVISION I. BRITISH SPECIES.

1. Common Wood-vetch.

Orobus vulgaris.

The root is long, thick, and spreading: it penetrates far into the ground, and remains many

years: its substance is firm, and its taste not unpleasant.

The stalks are numerous, firm, and rigid: they do not support themselves upright, nor have tendrils; for which reason they trail upon the ground:

ground: they are a foot and half long, of a pale green, striated, and hairy.

The leaves are pinnated in a very regular and beautiful manner: each is composed of eight or ten pair of small pinnæ, which are oblong, and of a dusky green on the upper side, and of a paler green underneath.

The flowers stand in little clusters six or eight together, and are of a plain redish colour on the outside, and of a dead purple, streaked with white, within.

The pods are broad, short, and somewhat flattened: the seeds are also small and flattened.

We have it in the north of England, and in some of the southern provinces in woods, but not common.

Ray calls it *Orobus sylvestris nostras*. The older writers have not mentioned it.

2. Heath Orobus. *Pl. 410*

Orobus sylvaticus foliis oblongis glabris.

The root is large, tuberous, and of an irregular form: its taste is sweet, and in some degree resembles that of liquorice.

DIVISION II. FOREIGN SPECIES.

Broad leaved Orobus.

Orobus pinnis latis. Pl. 410

The root is long, thick, and divided into many parts.

The stalk is of a pale green, firm, and tolerably upright, and a foot and half high.

The leaves are very beautifully pinnated: they are long, large, and of a pale green: each is composed of two or three pairs of pinnæ, which are of an oval figure, but sharp pointed, and of a deep green.

The stalk is weak, angular, striated, of a dusky green, and a foot high.

The leaves are placed irregularly on it, and are of a deep green colour: they are of the pinnated kind, the larger consisting of two pairs of pinnæ, without either a tendril or an odd leaf at the end, and the smaller only of one pair.

The flowers grow on long footstalks at the tops of the stalks and branches two or three together, and they are of a pleasing purple colour.

The pods are long and slender, and the seeds are roundish.

It is very common among bushes on heaths and in woods, and it flowers in April and May.

Ray calls it *Orobus sylvaticus foliis oblongis glabris*. Others, *Astragalus sylvaticus*, *Astragaloides*, and *Lathyrus lignosus*.

The roots sliced and boiled are good against coughs; and in nephritic complaints: they on any occasion are serviceable to obtund the acrimony of humors.

GENUS X.

GRASS-VETCH.

NISSOLIA.

THE flower is papilionaceous, and is composed of four petals. The vexillum is large, and the top and sides turn back; the extremity also is a little nipped. The alæ are short, blunt, and a little hooked. The carina is broad, and of a half-round figure, and is split at the bottom. The pod is very long, and the seeds are numerous and round. The leaves are placed singly and alternately on the stalks; and are long and narrow, resembling those of grass.

Linnaeus places this among the *diadelphia decandria*; the flower having ten threads, nine connected in one body, and a single one separate. But this author does not allow the plant to be a distinct genus. He joins this, as the *chymenum*, *apbaca*, and others, all improperly with the *lathyrus*, making them species of that genus. The conformity of the flowers in all these plants is this author's reason for his system permits him to look no farther: but as the species are numerous, and generical distinctions therefore needful, where they can be supported, this similarity of the flowers is the reason why the characters should be more carefully sought in other parts of the plant. The leaves afford these abundantly: and the genus of *lathyrus*, as he establishes it, is thus with perfect reason, and by very obvious characters, divided into four; the proper *lathyrus* having a single pair of pinnæ only, the *chymenum* two or more pairs, the *apbaca* single leaves in pairs, and the *grass-vetch* single leaves placed alternately.

These are distinctions as fixed and invariable as any the whole science affords from the flowers of plants: they are useful in the highest degree, and they are obvious and familiar.

Of this singular genus there is but one known species, and that is a native of Britain.

The Grafs-Vetch.

Nissolia. Pl. 41. 11

The root is composed of numerous, thick, and tough fibres.

The stalk is of a pale green, slender, but tolerably erect, rarely much branched, and two feet high.

The leaves are placed irregularly on the stalks from the top to the bottom of the plant; and there generally rises a young shoot of a branch in the bosom of every one of them: they are very long, narrow, and of a fine fresh green; so that they in all respects resemble those of grafs; and the plant is hardly distinguished, except when in flower.

The flowers are placed on long, slender foot-

stalks; and are of a bright red colour: they are small, but very conspicuous.

The pods are long and slender, and the seeds are numerous and round.

It is found by wood-sides, and in hedges in many places. Authors have called it by a variety of names, but all of them liable to so many objections, that this new one *nissolia* is very proper to be introduced in their place.

Some call it *Ervum sylvestre*; and others, *Catanance leguminosa*: but *ervum* and *catanance* are names of different plants; so this breeds confusion.

C. Bauhine calls it *Lathyrus sylvestris minor*; but the characters shew how improperly it is called by that name.

Its virtues are unknown.

G E N U S XI.

KIDNEYVETCH.

ANTHYLLIS.

THE flower is composed of four petals, and is papilionaceous. The vexillum is oblong: it turns back at the sides, and has a hollow bottom of the length of the cup. The alæ are of an oblong form, and are shorter than the vexillum. The carina resembles the alæ in shape and size; but it is compressed. The cup is formed of one piece, and is of an oval figure, somewhat swola and hairy: it is divided regularly into five segments at the edge, and it remains when the flower is fallen. The pod is very small, and of a roundish figure; and it remains covered within the cup.

Linnæus places this among the *diadelphia decandria*; the flower having ten threads in two assortments, nine collected into a body, and one single.

DIVISION I. BRITISH SPECIES.

1. Yellow Kidneyvetch.

Anthyllis pinnata flava. Pl. 41. 12

The root is long, thick, and furnished with many fibres.

The first leaves are long, and pinnated in a very regular and perfect manner: each is composed of six or more pairs of pinnæ, which are oblong and narrow, and a much larger leaf of the same form at the end: the whole is hairy, and of a whitish green.

The stalk is round, thick, and a foot or more in height when it rises up, but it more usually spreads about the ground; and is of a yellowish colour.

The leaves on this are perfectly like those from the root: they are placed irregularly, and are of the same pale colour.

The flowers stand in tufts at the tops of the stalks, and on long, slender pedicles rising from the bosoms of the leaves: they are small and yellow.

The pods are small, and remain concealed in the cups.

We have it in dry pastures not unfrequently. It flowers in July.

C. Bauhine calls it *Loto affinis vulneraria pra-*

ensis. Others, *Anthyllis leguminosa*, and *Vulnaria rustica*.

It has the credit of being a famous wound-herb; but these are virtues less regarded now than heretofore.

2. Purple Kidneyvetch.

Anthyllis procumbens floribus rubris.

The root is long, thick, and furnished with numerous fibres.

The first leaves are regularly pinnated: each is composed of several pairs of small pinnæ, with a larger odd leaf at the end.

The stalks are numerous, a foot long, and spread themselves on the ground.

The leaves are placed irregularly on them, and are pinnated as those from the root.

The flowers grow in large tufts at the tops of the stalks, and extremities of all the branches, and are of a bright red.

The seed-vessels are very small, and perfectly hid within the cup.

It is found in our western counties, and flowers in August.

Ray calls it *Vulnaria supina flore cocineo*. The older authors were not acquainted with it.

DIVI.

DIVISION II. FOREIGN SPECIES.

Yellow Cretic Kidneyvetch.

Anthyllis Cretica flore flava. Pl. 41. 13

The root is long, slender, and divided into numerous parts.

The first leaves are oblong, and undivided: they are of an inverted oval figure, broad, and rounded at the end, and narrow at the base.

The stalks are numerous, weak, and branched: they are of a pale green, and a foot and half high.

The leaves stand in an irregular manner on the stalks, and are small; about five grow together in an odd pinnated manner.

The flowers grow at the tops of the stalks and branches, and are small and yellow; eight or ten of them stand together in a cluster.

The seed-vessels are small, and they are contained in broad membranous cafes. These are formed of the cups of the flower, which swell into this shape and bigness after it is fallen.

The seeds are few and small.

It is frequent in the Greek islands, and flowers in August.

Prosper Alpinus calls it *Trifolium falcatum*: a strange name, but others have copied it.

G E N U S XII.

HORSE-SHOE VETCH.

HIPPOCREPIS.

THE flower is composed of four petals, and is papilionaceous. The vexillum is heart-fashioned, and has a very long bottom. The alæ are of an oval form, and are obtuse; and the carina is flatted and hooked. The pod is crooked, long, flatted, and cut deeply in at small distances all along the inner edge; so that it appears composed of a number of little points, fastened by narrow ends to the edge of the back. The seeds are small, oblong, and hooked; and one of them is lodged in every joint of the pod.

The singular form of the pod and seeds, which in some degree resembles a horse-shoe, has obtained it the Latin name *ferrum equinum*, as well as the English one *horse-shoe vetch*; but it is better to use the more modern term *hippocrepis*, as it is a single word; for generic names should never consist of more.

Linnæus places this among the *diadelphia decandria*; the threads being ten, and in two assortments, nine in one body, and another single.

DIVISION I. BRITISH SPECIES.

Tufted Horse shoe Vetch.

Hippocrepis siliquis confertis. Pl. 41. 14

The root is small, and divided into several parts.

The first leaves are long, narrow, and pinnated: each is composed of six or more pairs of short, oval pinnæ; and they are of a pale green: an odd leaf terminates each; and this is no larger than the others.

The stalks are numerous, slender, weak, branched, and eight or ten inches high.

The leaves on these are pinnated, and perfectly resemble those from the root.

The flowers are small, and of a gold yellow: they grow in a kind of round cluster at the top of the stalk, and on long pedicles rising from the bosoms of the leaves; and they are of long continuance.

The pods are long, crooked, and indented: they hang from the footstalk in the manner of a rude and ragged head of hair; whence some have named the plant.

It is found on high chalky grounds in many parts of the kingdom, and flowers in July.

C. Bauhine calls it *Ferrum equinum Germanicum siliquis in summitate*. Others, *Ferrum equinum comosum*. Some, *Hedysarum glycyrrhizatum*.

DIVISION II. FOREIGN SPECIES.

Single podded Horse-shoe Vetch.

Hippocrepis siliquis singularibus. Pl. 41. 15

The root is long, thick, and furnished with many fibres.

The first leaves are long, narrow, and pinnated: each consists of four or five pairs of pinnæ, with an odd one at the end; and these are broad, short, and heart-fashioned, smallest at the base, broadest at the top, and indented at the end.

The stalks are numerous, weak, and low. The leaves on these are pinnated in the same

manner as those from the root, and are of a pale green colour.

The flowers stand singly on slender footstalks rising from the bosoms of the leaves; and they are small and yellow.

The pod is long, somewhat crooked, and deeply indented: the seeds are small, and crooked, in the shape of an *horse-shoe*.

It is frequent in Italy, and flowers in July.

C. Bauhine calls it *Ferrum equinum siliqua singulari*.

GENUS

G E N U S XIII.

BIRDSFOOT.

ORNITHOPODIUM.

THE flower is composed of four petals, and is of the papilionaceous kind. The vexillum is small, and cordate or heart-fashioned at the top. The alæ are oval, and smaller than the vexillum. The carina is very small and flattened. The cup is formed of a single leaf, divided lightly into five segments at the edge, and it remains when the flower is fallen. The pod is long, slender, and jointed.

Linnaeus places this among the *diadelphia decandria*; the threads in the flower being ten, in two assortments, nine joining together in a body, and the other single.

Several flowers are in this genus placed on one receptacle; and the pods being numerous, and of this singular form, have some resemblance to the foot of a small bird; whence the name. Linnaeus shortens it, and writes the word *ornithopus*.

DIVISION I. BRITISH SPECIES.

Common Birdsfoot. *Plum.*

Ornithopodium filiquis incurvis.

The root is long, slender, and furnished with numerous fibres, with little tubercles often hanging to them.

The first leaves are small, oblong, narrow, and beautifully pinnated: they are of a pale greyish green, and spread themselves in a regular manner upon the ground.

The stalks rise among these; and are numerous, weak, and four or five inches high.

The leaves on them are numerous, and placed irregularly: they are pinnated in the same manner as those from the root, each consisting of twelve or more pairs of very small roundish pinnae, with an odd one at the end.

The flowers are small, and variegated with purple, white, and yellow: they stand in clusters on little footstalks, and have a pretty appearance.

The pods are long, slender, and jointed, a little crooked, and of a pale green: they very much resemble in the cluster the foot of a small bird.

It is common in dry, hilly pastures, and flowers in June. Hyde-park abounds with it.

C. Bauhine calls it *Ornithopodium minus*; and he describes a variety of it somewhat larger, under the name of *Ornithopodium majus*. Most of the common writers are guilty of the same error: the plant is the same, only more or less nourished.

DIVISION II. FOREIGN SPECIES.

Flat-podded Birdsfoot. *Plum.*

Ornithopodium filiquis compressis.

The root is long, slender, and furnished with a few fibres.

The first leaves are long, narrow, and very regularly pinnated: each is composed of ten or twelve pairs of small pinnae, which are of an oval form, sharp-pointed, of a pale green colour, and a little hairy.

The stalks are numerous, weak, and low: they are divided into a few branches, and are of a pale green.

The leaves on these perfectly resemble those from the root, and are of the same pale green.

The flowers stand on long footstalks one or two on each; and they are small and yellow.

The pods are long, slender, and crooked; and they are of a dusky colour, and rough on the surface.

The seeds are small and brown.

It is common in Italy, and flowers in August.

C. Bauhine calls it *Ornithopodium affinis bifida scirpioides*. Others, *Scirpioides leguminosa*.

G E N U S XIV.

PODDED MILKWORT.

GLAUX.

THE flower is composed of four petals, and is of the papilionaceous form. The vexillum is upright, nipped at the top, oblong, and turned back at the edges. The alæ are of an oblong form, and smaller than the vexillum. The carina is nipped at the end, and is of the same length with the alæ. The cup is formed of a single piece, divided lightly into five segments, which are smallest on the lower side. The pod is short, and heart-fashioned.

Linnaeus places this among the *diadelphia decandria*; the threads in the flower being ten, in two divisions, nine in one, and a single one in the other.

This author joins it to the *astragalus*, as of the same genus: but they differ obviously; the pods of the *astragalus* being oblong and obtuse, and that of the *glau* short and pointed.

DIVISION I.

DIVISION I. BRITISH SPECIES.

1. Liquorice Vetch. *Plum.*

Glaux procumbens filiquis majoribus.

The root is long, thick, and furnished with many fibres.

The stalks are numerous, and of a pale green: they spread themselves in a circular manner, and do not rise much above the ground.

The leaves are very large, pinnated, and of a pale green: each is composed of five or six pairs of larger oval pinnae, with an odd one at the end; and they are sharp pointed.

The flowers grow on footstalks rising in the bosoms of the leaves, and are of a pale yellow.

The seed-vessels are long, slender, and grow several in a cluster: they are of a brown colour, and contain numerous seeds.

It is common in thickets at the foot of hills, and flowers in August.

C. Bauhine calls it *Glycyrrhiza sylvestris floribus lateo pallescentibus*. Others, *Glaux leguminosa*, and *Astragalus luteus*.

2. Little Purple Glaux.

Glaux exigua incana purpurea.

The root is long, slender, and furnished with a few small fibres.

The stalks are numerous, weak, and four inches long.

The leaves are placed irregularly on them, and are long and pinnated: each is composed of six or eight pairs of pinnae; which are small, short, and hairy, and of a pale green colour; and there stands an odd one at the end.

The flowers are placed in clusters on slender footstalks; and they are of a bright purple.

The seed-vessels are short and swelled.

It is found in dry, hilly pastures, and flowers in July.

Ray calls it *Glaux exigua purpurea montana nostras*.

There is an opinion that these plants encrease milk in the breasts of nurses; but it is not supported on any good authority.

DIVISION II. FOREIGN SPECIES.

Spanish Milkwort.

Glaux capitulis imbricatis.

The root is long, slender, and furnished with a few fibres.

The first leaves are numerous, and beautifully pinnated: they are composed each of ten or twelve pairs of small oval pinnae, with an odd one at the end.

The stalks rise among these; and are numerous, small, and not much branched: they are six or eight inches in length, but usually lie in part upon the ground.

The leaves on these are numerous, and placed irregularly: they are pinnated in the same manner as those from the root, and are of a pale green.

The flowers are placed in thick, oval heads upon the stalks: they are small and yellow.

The seed-vessel is short, and the seeds are small.

It is frequent in Spain and Italy, and flowers in June.

C. Bauhine calls it *Ciceri sylvestri minori affinis*. Others, *Glaux Hispanica*, and *Glaux Dioscoridis*.

G E N U S XV.

COCKSHEAD.

ONOBRYCHIS.

THE flower is composed of four petals, and is of the papilionaceous kind. The vexillum is oblong, compressed, reflex, and dented at the end. The alæ are extremely short, strait, and narrow. The carina is short, compressed, and split along the bottom. The cup is formed of a single leaf, divided into five pointed segments, and remains when the flower is fallen. The pod is short, and consists only of a single cell.

Linnaeus places this among the *diadelphia decandria*; the threads in the flower being ten, and formed into two assortments, nine in one body, and a single one separate from them.

He joins this with the *bedysarum*, not allowing it to be a distinct genus. But the pods shew a manifest generical difference; those of the *bedysarum* being composed of several joints, and this of the *onobrychis* being single.

DIVISION I. BRITISH SPECIES.

Common Cockhead.

Onobrychis vulgaris.

The root is long: it penetrates very deep into the earth, and is furnished with numerous fibres.

N° XXX.

The stalks are round, striated, of a pale green, weak, and a foot and a half high.

The leaves are regularly pinnated: each is composed of six or eight pairs of pinnae, with an odd one at the end; and these are oblong, narrow, sharp-pointed, and of a fresh green.

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The flowers stand in a kind of spikes, on long, slender footstalks rising from the bosoms of the leaves; and they are large and red:

The pods are short and crested; so that they resemble in some degree a *cock's comb*; whence the plant has its name.

The seeds are large and brown.

It is found wild in dry, hilly pastures, and flowers in August.

C. Bauhine calls it *Onobrychis foliis vicie fructu echinato majori*.

It is sown in fields for the food of cattle, in the

manner of clover: and it answers the farmer's purpose much better. Nothing is a greater improvement in the modern husbandry than the introducing of this plant. We received the seeds from France, where it has been long used; and now it is once upon a footing in our country, it will not lose its place again. It is wonderful the use of it should have been so long either unknown or neglected among us. It has been famous for the same purpose these two thousand years: the Greeks cultivated it; and, from its causing plenty of milk in their cows, called it *polygalon*.

DIVISION II. FOREIGN SPECIES.

Prickly-headed Cockscorn: *Pl. 42. 1*
Onobrychis filiquis echinatis magnis.

The root is slender and white, long, and furnished with a few fibres.

The first leaves are pinnated in a regular manner: each consists of eight or ten pairs of narrow, pointed pinnae upon a middle rib: and there is an odd one at the end: their colour is a pale green.

The stalks are numerous, weak, and of a

whitish colour: they often trail upon the ground, and seldom rise to more than ten inches high.

The flowers stand at the tops in great clusters, and are of a pale red.

The seed-vessel is large and prickly, and contains a single large kidney-shaped seed.

It is a native of the south of France, and flowers in August. It is found near the sea-coasts.

C. Bauhine calls it *Onobrychis fructu echinato minor*.

SERIES II.

FOREIGN GENERA.

Those of which there is no species naturally wild in this country.

GENUS I.

HATCHET VETCH.

HEDYSARUM.

THE flower is of the papilionaceous form. The vexillum is long and compressed, and it is nipped at the end. The ale are long and strait. The carina is strait, compressed, and broadest in the outer part; and it is, as it were, cut off, and split a part of its length. The cup is formed of a single piece, and is divided into five segments: these are long, narrow, strait, and sharp-pointed; and they remain when the flower is fallen. The seed-vessel is of an oblong form, and is composed of several joints, hung together in the manner of a chain.

Linnaeus places this among the *diadelphia decandria*; the threads in the flower being divided into two assortments, nine in one, and a single one for the other.

He joins this and the *onobrychis*, as we have observed, under one head: but the distinction is obvious and great; the seed-vessel of the *onobrychis* being but a single piece, and containing only a single seed, and that of the *hedysarum* being composed of many such pieces linked together, and containing several seeds.

Where the distinctions are thus certain, it is very wrong to confound the genera, for the science is rendered easy by the number of those distinctions.

As we have no proper English name for this genus, the best method will be always to use the Latin one *hedysarum*. We have added the common received English term; but, being composed of two words, it is wrong for a generic distinction.

French Honeyfuckle.

Hedysarum filiquis articulatis rugosis. Pl. 42. 2

The root is long, thick, and furnished with numerous fibres.

The first leaves are large, long, and pinnated: they are composed each of five or six pairs of pin-

nae; which are large, broad, and of a dusky green, and have an odd one of like figure at the end.

The stalks are numerous, upright, and of a pale green: they are not much branched, and are of a tough substance.

The leaves on these resemble those from the root; but they are of a pale and yellowish green.

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The flowers stand in long, thick spikes at the tops of the stalks and branches; and are moderately large, and very beautiful; their colour is a bright red, and they have streaks of a pale or fleshy tinct. The whole is glossy, like polished coral; and the mixture of colour bears some resemblance to that of the juice and seeds of a fresh-opened ripe pomegranate.

It is a native of the warm parts of Europe, and flowers in June.

C. Bauhine calls it *Onobrychis semine clypeato aspero majori*. Others, *Hedysarum clypeatum*. Our English name is very injudicious; but being that by which it is commonly known in gardens, we have preserved it. It would be better to call it *The great scarlet hedysarum*.

GENUS II.

LUPINE.

LUPINUS.

THE flower is papilionaceous. The vexillum is of a roundish, and somewhat heart-fashioned structure, and has the edges compressed and turned back. The ale are of an oval shape, and nearly of the length of the vexillum; and they converge in the lower part. The carina is divided or split at the bottom, and is of a hooked shape: it is undivided at the end, and is of the length of the ale, but narrower. The cup is formed of a single piece, and is divided only into two segments. The pod is large, long, and somewhat flattened; and it contains several large roundish seeds. The leaves are formed like the fingers of a hand.

Common Lupine. *Pl. 42. 3*

Lupinus vulgaris caulis ramosis.

The root is long, slender, white, and furnished with a few fibres.

The first leaves rise in small clusters; and are of the fingered shape, each being composed of about seven parts regularly expanded: they are placed on long footstalks, and are of a dusky green.

The stalk is round, upright, firm, hairy, of a whitish colour, and considerably branched: it is three feet high.

The leaves upon this resemble those from the root, but they are smaller: each is composed of about seven narrow parts; and the colour is a pale green.

The flowers are numerous and large: they stand several together on short footstalks rising from the bosoms of the leaves. Their colour is naturally white; but the skill of our gardeners has variegated it in many ways. We see striped flowers and double flowers in this species.

The seed-vessels are long and large; and the seeds are broad, and somewhat flattened.

It is a native of Spain; whence it has been brought into our gardens, and has there furnished us with this number of beautiful varieties. It flowers in July.

C. Bauhine calls it *Lupinus sativus flore albo*.

2. Blue Lupine.

Lupinus flore majore ceruleo. Pl. 42. 4

The root is long, white, thick, and furnished with several considerable fibres.

The first leaves are numerous; and they are placed on long, slender footstalks: they are composed each of five parts, spread in the manner of fingers; and these are oblong, narrow, wide asunder, and of a pale green.

The stalk is upright, round, and of a pale green: it is not much branched, and is two feet and a half high.

The leaves on this resemble those from the root; but they are smaller, and of a paler green.

The flowers are placed on long footstalks rising

from the bosoms of the leaves, and in a kind of spikes, six or more growing in a double series on each footstalk: they are large, and of a beautiful blue.

Naturally the colour is simple and unmixed, but art has rendered the flower double and striped; and we frequently see it very beautiful in our gardens.

It is a native of the south of France, where it flowers in their corn-fields in July and August.

C. Bauhine calls it *Lupinus sylvestris flore ceruleo*. Others, *Lupinus flore ceruleo majore*. Our people, the *Blue lupine*.

3. Small-flowered Blue Lupine. *Pl. 42. 5*

Lupinus angustifolius flore minore ceruleo.

The root is composed of a long body, and innumerable fine fibres.

The stalk is slender, upright, of a pale green, and a yard high.

The leaves are placed on long footstalks; and each is composed of five or six parts, which are slender, sharp-pointed, and of a bluish green.

The flowers stand three or four together, in a kind of loose spikes, on long footstalks, rising from the bosoms of the leaves; and they are small, and of a deep blue, inclining to purple. This is their natural colour; but, like the others, they admit great variation from culture.

The pods are long and large.

It is a native of Italy, and flowers in July.

Ray calls it *Lupinus angustifolius ceruleus elatior*. Others, *Lupinus flore parvo ceruleo*, and *Lupinus procerior ceruleus*.

4. Yellow Lupine.

Lupinus flore luteo. Pl. 42. 6

The root is composed of numerous spreading fibres.

The stalk is round, upright, of a brownish colour, soft, hairy, and near a yard high.

The leaves are placed on long footstalks; and each is composed of about nine parts, spread in the manner of fingers, and of a yellowish green.

The flowers are placed on long footstalks in a kind

kind of spikes; and they are large and yellow, and of a very sweet smell.

The feed-vessels are large, and the seeds somewhat flat, and clouded or spotted with a variety of colours.

It is a native of Sicily, and is found most frequently near the sea-coast. It flowers in August.

C. Bauhine calls it *Lupinus sylvestris flore luteo*. Others, *Lupinus flavus*, and *Lupinus luteus*; and we, the *Yellow lupine*.

5. The Giant Lupine.

Lupinus maximus hirsutus. *Pl. 42. 7*

The root is long and thick, and it is furnished with innumerable fibres.

The first leaves are numerous, and very beautiful: they are placed on long footstalks; and each is composed of seven or more parts: these are oblong, broad, of a beautiful bluish green, and hairy.

The stalk is round, thick, white, and a yard and a half high.

The leaves on this resemble those from the root, but they are smaller.

The flowers stand in spikes or clusters on short footstalks; and are large, and of a beautiful sky-blue.

This is their natural colour; but the industry of our gardeners has in this respect introduced so much variation, that the plant is scarce to be known for the same species, except for its great height and hairyness.

The feed-vessels are very large, and the seeds are large and flattened.

It is a native of the East Indies, and flowers in August.

C. Bauhine calls it *Lupinus peregrinus major*, *fructu villosus ceruleus major*. Its great height has got it with us the name of *Giant lupine*.

6. Perennial Lupine.

Lupinus ceruleus perennis. *Pl. 42. 8*

The root is composed of numerous, slender,

G E N U S III.

KIDNEY BEAN.

P H A S E O L U S.

THE flower is papilionaceous. The vexillum is obtuse, and of a heart-like shape, and has the edges turned back. The alæ are oval, and have long, slender bottoms. The carina is narrow and twisted. The cup is divided into two lips; the upper one of these is nicked at the tip, and the lower has three points. The feed-vessel is long and slender; and the seeds are kidney-shaped.

Linnaeus places this among the *diadelphia decandria*; the threads in the flower being placed in two assortments, nine in one, and a single one in the other; as in the preceding kind.

1. The common white Kidneybean.

Phaseolus vulgaris.

The root is oblong, slender, and furnished with many fibres.

The stalk is round, of a dusky green, weak, jointed, and branched: it will trail upon the ground unless supported.

The leaves are large, and of a dusky green: three are placed on every footstalk; and they are broad, and pointed at the ends.

The flowers stand several together, and are sometimes white, sometimes redish, and some-

and long fibres, which run under the surface of the ground, and send up clusters of leaves and stalks in different places. The colour of these fibres is redish; and they spread vastly, and remain many years.

The leaves are placed on long, slender, yellowish, hairy footstalks: each is composed of seven or more parts, spread out like the rays of a star; and these are short, broad, rounded at the ends, and of a bluish green.

The stalk is round, of a pale green, weak, and about a foot and a half long: it does not often stand perfectly erect, but usually leans or trails a little.

The leaves on this are placed upon long, slender footstalks; and they resemble those from the root, but that they are composed of longer and narrower parts.

The flowers are small and blue; the feed-vessels are long, slender, and whitish; and the seeds are small and flattened.

It is a native of North America, and flowers in August.

Morison calls it *Lupinus ceruleus minor perennis Virginianus repens*.

The common white lupine is cultivated in many parts of Europe, in the manner of our small pulses, for the food of cattle.

The fresh plant is cut up for this purpose about the time of its flowering.

The ripe seeds are in some places eaten at table; but they have a bitterness that is unpleasing.

They are good against worms in children, and are for that purpose best given as a decoction, sweetened with honey.

The young fruit entire, infused in water, promotes the menses; and the flour of the seeds is used in cataplasms, and other outward applications.

The seeds are also used in decoction, and are good for the same purposes.

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At sea they eat the dried seeds in the manner of peas; but this is a coarse method, occasioned by necessity. The young pod is the proper part.

2. Scarlet Kidneybean.

Phaseolus flore coccineo major. *Pl. 42. 9*

The root is long, slender, and hung with a great number of fibres.

The stalk is of a pale green, slender, and weak: when supported it will grow to six or eight feet in height; but otherwise it trails on the ground, and is shorter.

The leaves are placed on long footstalks, and three stand on each: these are long, broad at the base, sharp at the point, and of a fine green.

The flowers are large, and of a bright scarlet: they stand in a kind of spikes upon long footstalks.

The feed-vessel is large and oblong: the seeds are large and spotted.

It is a native of the East Indies, and flowers in July.

C. Bauhine calls it *Phaseolus Indicus flore coccineo*; and others follow him.

G E N U S IV.

B I R D S - P E A.

O C H R U S.

THE flower is papilionaceous. The vexillum is very broad, and nipp'd at the top. The alæ are roundish, and convergent. The carina is short, flattened, and of the shape of a new moon. The cup is formed of a single piece, divided into five segments. The feed-vessel is long and large, and the seeds are round: they are fixed to the receptacle by a long rim. The leaves are single, and have tendrils at the end.

Linnaeus places this among the *diadelphia decandria*; the threads being ten, and disposed as in the preceding genera.

This author does not allow the *ochrus* to be a distinct genus. He makes it a species of *pea*; but it is sufficiently distinguished by Nature. There is but one known species of this genus, and it has at all times been judiciously held distinct by authors.

The Birds-Pea.

Ochrus. *Pl. 42. 10*

The root is long, slender, and furnished with many fibres.

The stalks are numerous, weak, slender, and of a pale green: they lie upon the ground, if not supported: but, when there are bushes near, they will run up to two feet and a half in height.

The leaves are of a very singular shape and structure: their base is leafy, and runs down the stalk; from thence they run out broader to the extremity, where they divide into two parts, properly the leaves of the plant, and have tendrils.

We call the leaves single, in compliance with custom; but the single part is truly a kind of base all the way, on which grow these two separate leaves.

The flowers stand singly on short footstalks in the bosoms of the leaves; and they are small and white.

The feed-vessel is long, and the seeds are round.

It is common wild in the corn-fields of Italy, and in the Greek islands. It flowers in August.

C. Bauhine calls it *Ochrus folio integro capreolos emittente*. Others simply *Ochrus*, and some *Ervilia*.

G E N U S V.

L E N T I L L.

L E N S.

THE flower is papilionaceous. The vexillum is large, broad, and obtuse. The alæ are of the same form with the vexillum, and about half its bigness. The carina is very small, and sharp-pointed. The cup is divided into five narrow and longish parts. The feed-vessel is short, and the seeds are two in each pod, and they are round.

Linnaeus places this among the *diadelphia decandria*, as the preceding: and he makes the *cicer* or *chick* a species of this genus; but they are sufficiently distinct from the particular form of the *chick* seed, and always have been called by separate names.

Common Lentil.

Lens vulgaris. *Pl. 42. 11*

The root is small, longish, and full of fibres.

The stalks are numerous and weak: they are of a pale green, and lie upon the ground in great part, unless they meet with bushes or sticks for support.

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The leaves are long, narrow, and beautifully pinnated: each is composed of several pairs of short, oval pinnæ, with a tendril instead of an odd leaf at the end.

The flowers are small, and of a faint purple: they grow on long, slender footstalks, rising from the bosoms of the leaves, two on each.

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The seed-vessel is short and thick, and the seeds are roundish.

It is a wild plant in France among corn, and flowers in July.

C. Bauhine calls it *Lens vulgaris*. Others, *Lens major*, and *Lens minor*; for there is no difference

between those but from accident of culture.

Many things have been said with little reason on the virtues of *lentils*: experience shews them false. We cultivate it for the food of cattle.

G E N U S VI.

C H I C H.

C I C E R.

THE flower is papilionaceous. The vexillum is large and roundish. The alæ are small and obtuse, and the carina is small and sharp-pointed. The cup is divided into five narrow segments. The seed-vessel is short and swelled; and the seeds are roundish, but cornered; so that they are supposed to represent the head of a ram.

Linnaeus places this, as the preceding, among the *diadelphia decandria*, making it improperly a species of *lentil*.

Common Chick.

Cicer vulgare. Pl. 42. 12

The root is long, slender, white, and furnished with numerous fibres.

The stalks are weak, slender, branched, and of a pale green.

The leaves are pinnated in a very regular and beautiful manner: each is composed of four or five pairs of pinnæ, with an odd one at the end; and these are short, broad, and serrated at the edges.

The flowers stand singly on short footstalks rising from the bosoms of the leaves; and they are small, and of a whitish or purplish colour, varying in the degree as chance directs.

The seed-vessel is short and thick, and the seeds

are two: these are large at one end, small at the other, and cornered; so that they are supposed to resemble a ram's head: but there must be some strength of imagination to make out the likeness.

It is wild in the corn-fields of Spain, and flowers in August.

C. Bauhine calls it *Cicer sativum*.

It is celebrated as a promoter of venery, but with no great reason. The seeds are of the pea kind in nature and qualities, and may be eaten in the same manner.

We raise the plant, among our other improvements of husbandry, in fields for the food of cattle. It is an excellent herb for that purpose, and far from exhausting the land, it mellows it, and prepares it for bearing larger crops of corn.

G E N U S VII.

G O A T S R U E.

G A L E G A.

THE flower is papilionaceous. The vexillum is large and oval, and it is turned back at the top and at the edges. The alæ are oblong, and have a kind of appendage at the tips. The carina is strait and compressed, and is oblong, and irregular in shape. The cup is short, tubular, and divided into five segments at the edge. The seed-vessel is long, slender, sharp pointed, and knotted at the places where the seeds lie. The seeds are oblong, and kidney-shaped.

Linnaeus places it among the *diadelphia decandria*; the threads being disposed as in the preceding genera.

Common Goats Rue.

Galega vulgaris. Pl. 42. 13

The root is long, slender, and furnished with numerous fibres.

The stalks are round, upright, branched, of a pale green colour, and a yard high.

The leaves are beautifully pinnated, and of a faint green: they are composed of five or more pairs of pinnæ, with an odd one at the end; and these are long, narrow, and sharp-pointed.

The flowers grow in spikes upon long, slender footstalks rising from the bosoms of the leaves:

they are small, and of a pale blue, streaked often with white.

The seed-vessels are very long, slender, and green. It is a native of Italy, and flowers in August.

C. Bauhine calls it *Galega vulgaris*; and others use the same name.

It was at one time in great esteem as a cordial, alexipharmic, and sudorific; but it never deserved the praise bestowed upon it, and is now with reason fallen into neglect. It is an ingredient in several of the old compositions of the shops.

G E N U S

G E N U S VIII.

B I T T E R V E T C H.

E R V U M.

THE flower is papilionaceous. The vexillum is large, roundish, flat, and lightly turned back. The alæ are short and obtuse. The carina is very short, and terminates in a point. The cup is divided at the edge into five narrow segments. The fruit is a long, rounded pod, distinguished into a kind of joints by the swelling of the seeds.

Linnaeus places this among the *diadelphia decandria*; the threads being disposed as in all the preceding genera. This genus is generally called *orobus*; but that name being appropriated to another, it is best to use the other term *ervum*.

Narrow-leaved Bitter Vetch.

Ervum foliis angustis. Pl. 42. 14

The root is composed of many slender fibres.

The stalks are numerous, weak, and trailing, unless supported.

The leaves are long and narrow: they are composed of numerous pairs of oblong and slender pinnæ, and are of a dusky green.

The flowers are large and white: they stand singly on long, slender footstalks, rising from the bosoms of the leaves.

The seed-vessel is long, and appears jointed, swelling out at the places where the seeds lie.

It is a native of Italy, and the south of France, and flowers in August.

C. Bauhine calls it *Orobus siliquis articulatis flore majore*. Others, *Orobis verus*, and *Orobis receptus herbariorum*.

It is a dispute whether this be or be not the *orobus* of some of the antient writers; but it is of little consequence, the virtues being too in-

considerable to warrant any great enquiry on that head.

2. Small-flowered Bitter Vetch.

Ervum siliquis minoribus. Pl. 42. 15

The root divides into numerous fibres, and is whitish.

The stalks are slender, weak, hollow, of a pale green, and half a yard high.

The leaves are large, and of a beautiful green: they are composed each of six or more pairs of long and narrow pinnæ, with an odd one at the end.

The flowers are very small and white: sometimes lightly dashed with purple.

They stand three or four together, on long, slender footstalks.

The pods are slender, long, and very deeply divided or jointed by the swelling of the seeds. The seeds are small and cornered.

It is a native of France, and flowers in August.

C. Bauhine calls it *Orobis semine obtuso triangulo*. Others, *Cicer orobæum*.

G E N U S IX.

S E C U R I D A C A.

THE flower is papilionaceous. The vexillum is short, of a heart like shape, and turned back at the top and sides. The alæ are oval, obtuse, and convergent upwards. The carina is flattened, short, and pointed. The cup is divided into two principal parts; the upper one is divided again into two, and the lower one into three segments. The seed-vessel is very long, slender, and flattened, and the seeds are square.

Linnaeus places this among the *diadelphia decandria*; the threads in the flower being ten, and disposed as in the preceding genera.

Great yellow Securidaca.

Securidaca major flore flavo. Pl. 42. 16

The root is divided into many parts, and furnished with innumerable fibres.

The stalks are numerous, and of a pale green, tough, and branched; and, when properly supported, they will rise to the height of four feet or more.

The leaves are large, and beautifully pinnated: each is composed of six or eight pairs of pinnæ,

with an odd one at the end; and these are broad, short, obtuse, and of a bright green.

The flowers are large and yellow: they grow in tufts, four or more together upon the tops of slender footstalks rising from the bosoms of the leaves.

The seed-vessels are long, slender, flattened, and somewhat hooked.

It is common in France and Italy among corn, and flowers in August.

C. Bauhine calls it *Securidaca lutea major*. Linnaeus makes it a species of *coronilla*.

G E N U S

G E N U S X.

CATERPILLARS.

SCORPIOIDES.

THE flower is papilionaceous. The vexillum is of a roundish form, turned back at the top, and nipped at the extremity. The alæ are of an oval form, and have a small appendage. The carina is of the form of a crescent, and is split on the lower part. The cup is flattened, formed of a single piece, and lightly divided into five segments. The seed-vessel is long, rough, and twisted; and the seeds are roundish.

Linnaeus places it among the *diadelphia decandria*; the threads of the flower being ten, and arranged in the same manner as in the preceding genera. He dislikes the old name *scorpioides*, and calls it *scorpiurus*. Our people call it *caterpillars*, from the shape of the pods.

Long-leaved Caterpillars. *Plat. 17*

Scorpioides folijs longioribus indivisis.

The root is long, slender, yellow, and furnished with numerous fibres.

The stalks are round, weak, of a pale green, and two feet in length, but not perfectly upright.

The leaves are oblong and undivided, obtuse at the ends, and not so much as notched along the edges: they are of a bluish green.

The flowers are placed two together on the tops of very long and slender footstalks rising from the bosoms of the leaves: they are small, but of a fine gold yellow.

The seed-vessel is hairy, long, slender, and turned or twisted round, and is brown: the seeds are small, and also brown.

It is wild in Spain and Italy, and flowers in July.

C. Bauhine calls it *Scorpioides Beupleuri folio*. J. Bauhine, *Scorpioides filiqua campode bifida*. Our gardeners, *The caterpillar plant*.

Neither this, nor the generality of the former species, are distinguished by any particular virtues. They are of the pulse kind; and therefore their seeds would be eatable, if larger, and better flavoured. Their singularity gives them a place in gardens.

The END of the SEVENTEENTH CLASS.



THE

BRITISH HERBAL.

CLASS XVIII.

Plants whose flower is papilionaceous; whose seed-vessel is a regular, but small leguminous pod; and whose leaves are placed three on each footstalk.

THE form and structure of the flower is the same in this and in the preceding genus, and the disposition of its threads the same.

For this reason Linnaeus arranges these with the preceding genera under one and the same class, the *diadelphia decandria*; dividing them from the rest only by the mark of a particular section. This was necessary according to his method, which does not admit any part of a plant but the flower and fruit into the consideration of a classifical distinction: but in nature the genera are perfectly separated from all others, and kept united together by this singular character of the leaves growing three together. This is constant and certain: it does not in all the class admit a single variation or exception; and it is therefore a proper mark for the distinction of a class; the smallness of the pod joining to establish it.

In all the course of Nature, when carefully observed and truly followed, there are found marks of the connection, not only of the lesser but greater distinctions: in this case the same method is observed in that respect as in others. The kidneybean is the genus uniting the leguminous and trifoliate plants, the leaves in all the species of that genus grow by threes; and the seed-vessel is long, large, and of the proper leguminous kind.

S E R I E S I.

Natives of BRITAIN.

Those of which one or more species are found naturally wild in this country.

G E N U S I.

T R E F O I L.

T R I F O L I U M.

THE flower is papilionaceous; the vexillum is turned backwards; the alæ are short, and the carina is very short, and somewhat broad. The cup is formed of a single piece, and is small, tubular, and divided lightly into five segments at the edge; and it remains with the fruit; as does also in many species the flower. The seed-vessel is a short pod, composed of a single valve; and the seeds are roundish and few.

Linnaeus places this among the *diadelphia decandria*, making it of the same class with the pulse; and he comprehends under the name of this genus almost a whole class, destroying the received distinctions of mellilot, hares-foot, *hop-trefoil*, and many other genera, and making all species of this

We have observed on preceding occasions, that the placing too many species under one common term or generic name, is making the greatest of all difficulties in the science. This is no where so evident as in the present instance; the species of the *trefoil*, according to Linnæus, being too numerous for any rational method.

It is plain that author acted from necessity in this instance; his method allowing no generic distinctions to be formed upon any part beside the flowers and fruit. But this is the great inconvenience of that method; and indeed it is so great, that, were there no other reason, it alone ought to prevail against the reception of his system. He is obliged to acknowledge, that his generic character of the *trefoil* is imperfect: and he attempts to palliate the imperfection, by observing, that other authors have succeeded no better who have taken in the consideration of the leaves: but there is more chance for a certain and distinct character, when these are taken to assist in the forming it, than when the flowers are considered alone. This is what we shall attempt in the distinctions of the succeeding genera.

DIVISION I. BRITISH SPECIES.

1. Common white Trefoil.

Trifolium pratense album. *Pl. 43.1*

The root is long, slender, and hung with many fibres.

The first leaves are supported on long, slender footstalks, of a pale green: three leaves grow on each footstalk; and they are of a deep green, broad, short, and marked with a white spot usually in form of a crescent in the middle.

The stalks are numerous, short, and procumbent: they divide into branches as they run upon the ground, and send out in an irregular manner a great many leaves of the same form and structure with the first, and the stalks for the flowers among them: these are slender, like those of the leaves, and of the same pale green.

The flowers are small and white; and they stand a great many together, in a round, thick head.

The seed-vessel is short, and contains four small seeds.

It is common in our meadows and pastures, and flowers in June.

C. Bauhine calls it *Trifolium pratense album*; and most others use the same name.

It varies extremely in dry and barren soils. Some have from this accident made several imaginary species; and, on the other hand, others have supposed this itself not distinct from the common red trefoil, but only a variety. This is as great an error as the other. The colour of the flower is the least distinction between them, as will be seen on comparing the descriptions together.

2. Long-flowered white Trefoil. *Pl. 43.2*

Trifolium album sterculis longioribus paucis.

The root is long, slender, and furnished with numerous fibres.

The first leaves are placed three together on slender footstalks: they are short, broad, and dented at the end, or regularly heart-fashioned; and are of a pale green.

The stalks spread about the ground: they are numerous, weak, and of a whitish colour.

The leaves on these are like those from the root: they are also of a pale green, and a little hairy.

The flowers are white: they grow at the extremities of the stalks, and on pedicles rising from the bosoms of the leaves: they do not grow in round heads, but only two or three together.

The seed-vessels are short, and the seeds are few.

It is singular in this plant, that the seed-vessels frequently hanging so as to touch the ground, take root: they are sometimes drawn under the surface, or detained so close to it, that dust falls over them, and buries them. In this condition the seeds grow best of all, and speedily furnish abundance of new plants.

The natural size of the plant is not larger than the least of the *hop-trefoils*, its branches three inches or more in length; but it will sometimes grow much bigger.

It is common in dry pastures, and flowers in June.

Ray calls it *Trifolium pumilum supinum sterculis longis albis*. Morison, *Trifolium album tricoctum subterraneum articulatum*. Others, *Trifolium folliculos sub terra condens*.

3. Yellowish-flowered Trefoil. *Pl. 43.3*

Trifolium bifuratum majus flore albo-sulphureo.

The root is composed of numerous slender fibres.

The first leaves are placed on long footstalks, three on each; and they are oblong, narrow, of a dusky green, not at all serrated; but pointed at the ends.

The stalks are numerous, slender, branched, of a yellowish green, and about a foot high.

The leaves on these are larger than those from the root, otherwise like them; and generally they are bigger toward the top of the plant than on the lower parts of the stalks.

The flowers grow in a long and large cluster, and they are of a very pale yellowish white.

The seed-vessels are small, and the seeds are minute and few.

We have it in dry pastures not unfrequently. It flowers in June.

Ray calls it *Trifolium pratense bifuratum majus flore albo-sulphureo, sive ocubro leuco*. The older writers were not acquainted with it.

4. Common red Trefoil. *Pl. 43.4*

Trifolium purpureum vulgare.

The root is composed of numerous fibres.

The first leaves are placed on slender footstalks, three on each; and they are broad, short, and of a deep green.

The stalks are numerous, and of a pale green: they are slender, branched, and eight or ten inches in length; but they usually trail in part upon the ground.

The

The leaves on these are like those from the root, but of a fresher green.

The flowers stand at the tops of the stalks, and branches in thick, longish heads; and they are of a bright red.

The seed-vessel is short, and the seeds are few and roundish.

It is common in our meadows and pastures, and flowers in June.

C. Bauhine calls it *Trifolium pratense purpureum*; and most others follow him.

This species, when sown in a favourable manner, yields what we call *clover*; the plant itself therefore is properly a wild clover. Mr. Ray distinguishes the clover of our cultivated land as a different species; but it is no other way different than as a plant improved by culture always is from the same in a wild state.

5. Little heart-leaved red Trefoil. *Pl. 43.5*

Trifolium parvum foliis cordatis flore rubente.

The root is composed of a few slender fibres, joined to a small oblong head.

The first leaves are few and small: they stand on long footstalks, three on each; and they are oblong, and heart-fashioned: they are of a pale green, and lightly hairy.

The stalk is slender, upright, of a pale green, slightly hairy, and five or six inches high.

The leaves on this are small; and they are placed on long, slender footstalks, three on each: they perfectly resemble those from the root in shape and colour; and it is singular, that toward the top of the stalk they usually grow in pairs.

The flowers are large, and of a pale red: they stand in oblong heads, upon weak footstalks, usually one head on each plant.

The seed-vessels are small, and the seeds are brown.

It is not uncommon in dry pastures, and flowers in June.

Ray calls it *Trifolium pratense purpureum minus foliis cordatis*.

6. Long-leaved purple Trefoil.

Trifolium foliis longioribus floribus purpureis.

The root is composed of a few thick fibres.

The first leaves are supported on short footstalks: and they are oblong, broad, obtuse, and of a deep green.

The stalks are round, weak, jointed, and a foot or more in height.

The leaves stand irregularly on these, and resemble those from the root, but that they are longer and narrower: three grow on each footstalk; and they are also of a dusky green.

The flowers are of a deep purple: they are placed in short, thick threads.

The seed-vessels are short, and the seeds are small.

We have it not unfrequently on hilly pastures. It flowers in June.

C. Bauhine calls it *Trifolium montanum purpureum majus*. J. Bauhine, *Trifolium majus secundum Clusii*.

7. Smooth teal-colored Trefoil.

Trifolium stellatum glabrum. *Pl. 42.6*

The root is long, slender, and furnished with many fibres.

The stalks are numerous, round, small, and tolerably erect: they are not much branched, and they are eight inches high.

The leaves stand on short, slender footstalks, three on each; and they are oblong, narrow, sharp-pointed, and of a dusky green.

The flowers stand at the tops of the stalks in oblong heads, resembling in some degree those of the common teal: they are small and red, and they open more than those of any of the other kinds at the end; whence the plant has obtained the name of *starry trefoil*.

We have it in dry sandy places, especially near the sea. It flowers in July.

Ray calls it *Trifolium stellatum glabrum*. Others, *Trifolium capitulis dispersis*; a name much more expressive.

8. Soft-headed Trefoil. *Pl. 42.7*

Trifolium bifuratum capitulis mollioribus rubentibus.

The root is composed of a number of small fibres, connected to a little head.

The first leaves are placed on long footstalks, three on each; and they are broad, and heart-fashioned; of a pale green, and a little hairy.

The stalks are numerous, weak, slender, and a foot high.

The leaves on the lower part of these resemble those from the root; but those on the upper part are longer and narrower, and of a paler green.

The flowers are small, and of a very pale red: they stand in longish tufts at the tops of the stalks and branches; and there generally are some leaves just under them.

The seed-vessels are small, but the seeds are large.

It is found in dry, barren pastures, and flowers in July.

Ray calls it *Trifolium parvum bifuratum floribus parvis dilute purpureis in glomerulis mollioribus & oblongis, semine magno*.

9. Round-knoted Trefoil.

Trifolium glomerulis ad caulium nodos rotundis.

The root is composed of numerous, long, and slender fibres, connected to a small head.

The stalks are numerous, round, weak, jointed, and of a pale green: they are eight or ten inches in length, and they lie in great part upon the ground.

The leaves stand on slender footstalks, three on each; and they are small, broad, and dented at the edges; and are of a faint yellowish green.

The flowers stand in little soft heads at the inflexions of the leaves, and are of a very pale red. The heads have no footstalks, but stand close to the stalk.

The seed-vessels are small, and the seeds few and brown.

It is common in hilly pastures, and flowers in June.

Ray calls it *Trifolium cum glomerulis ad caulium nodos rotundis*. Others, *Trifolium nodiflorum*.

10. Long-

10. Long-knotted Trefoil.

Trifolium glomerulis asperis oblongis.

The root is small and fibrous.

The stalks are weak, spreading, and of a pale green.

The leaves are placed at distances, three on a footstalk; and they are oblong, broad, and of a yellowish green.

The flowers are small and white: they are collected into large oblong heads, which stand in the bosoms of the leaves, and feel prickly; the segments of the cup being hard and pointed.

We have it in barren, dry pastures. It flowers in July.

Ray calls it *Trifolium flosculis albis in glomerulis oblongis asperis cauliculis proxime adnatis.*

11. Strawberry-Trefoil.

Trifolium fragiferum. Pl. 42. 0

The root is long and slender, and is hung with many fibres.

The first leaves are numerous: they are placed on slender footstalks, three on each; and they are short, broad, heart-fashioned, and of a pale bluish green.

The stalks rise among these, and are of a pale green, branched, irregularly upright, and of a firm substance: the leaves on them are numerous and small; they are of the same shape with those from the root, but of a pale colour.

The flowers are collected together in large, round heads, placed on long, slender, whitish

DIVISION II. FOREIGN SPECIES.

1. White mountain Trefoil. *Pl. 42. 9**Trifolium erectum album foliis longioribus.*

The root is composed of numerous, thick, spreading fibres.

The first leaves are few, but large: they are placed by threes upon long footstalks; and are long, narrow, hairy, and of a bright green.

The stalk is weak, but tolerably upright, not much branched, and a foot and half high.

The leaves on this resemble those from the root: they are long, narrow, and of a pale green, and covered with silvery hairs.

The flowers stand in large oval heads at the tops of the stalks and branches; and they are small and white, with a faint tinge of yellow.

The seed-vessels are thick and short, and the seeds are small.

It is frequent in the German pastures, and flowers in August.

C. Bauhine calls it *Trifolium montanum album.*

2. Stinkings, clammy Trefoil.

Trifolium bituminosum. Pl. 42. 10

This is a robust and large plant.

The root is composed of many fibres.

The first leaves rise in a tuft, and are placed in threes upon slender yellowish footstalks: they are broad and short, and are of a pale green.

The stalk is upright, branched, and two feet

footstalks. The flowers themselves are small, and of a very pale red; and they quickly fade. The cups are swollen; and they bend downwards, and terminate each in two points. These give the whole head a very singular appearance, altogether different from the other *trefoils*, and not unlike a strawberry.

It is common in pastures, and flowers in August.

C. Bauhine calls it *Trifolium fragiferum friscum.* Others, *Trifolium fragiferum.*

12. Long-leaved Strawberry-Trefoil.

Trifolium fragiferum foliis longioribus.

The root is long, spreading, and furnished with numerous fibres.

The first leaves rise in a thick tuft: they are placed on long footstalks, three upon each; and they are small, oblong, and sharp-pointed; not heart-shaped, as in the other.

The stalks are pale, branched, trailing, and eight inches long.

The leaves on these are oblong, and somewhat broad, of a yellowish green, and sharp-pointed.

The flowers are small, and of a very faint red: the heads are placed on long, slender footstalks, and somewhat resemble strawberries.

We have it in damp places. It flowers in July.

Ray calls it *Trifolium fragiferum nostras purpureum folio oblongo.*All these *trefoils* are of the same qualities. They are very wholesome food for cattle.

high: it is blackish toward the bottom, and pale or greenish in the upper part.

The leaves on this are placed in threes; but they are longer and narrower than those from the root: they are of a bright green; and, when touched, they are found clammy; and they have a very strong and disagreeable smell.

The flowers stand in loose tufts at the tops of the stalks, and are of a beautiful violet colour.

The seed-vessels are short, and contain a few brown seeds.

It is frequent in the warmer parts of Europe, and flowers in August.

C. Bauhine calls it *Trifolium bitumen redolens.* Others, *Trifolium bituminosum.*

It is celebrated against venomous bites, and in malignant fevers.

An oil drawn from its seeds has been also in early times famous in paralytic complaints.

3. Long-spiked, purple Trefoil. *Pl. 42. 11**Trifolium purpureum spica longiore rubente.*

The root is long, thick, and furnished with many fibres.

The leaves rise in a thick tuft, and are placed by threes upon short footstalks: they are long, narrow, and of a deep green, and very regularly notched at the edges.

The stalk is two feet high, firm, upright, branched, and of a pale green: the leaves on this

are numerous, and resemble those from the root: they are placed by threes upon slender, short footstalks; and to each of these there is a large membranaceous case or scabbard, which encloses the stalk at their base, and runs on to a considerable length.

The flowers are of a beautiful purple: they are placed at the tops of the stalks and branches in spikes, two inches or more in length.

The seed-vessels are short, and the seeds are large and brown.

It is frequent in Italy and in the south of France, and flowers in August.

C. Bauhine calls it *Trifolium purpureum spica longissima rubente.* Others, *Trifolium lagopoides majus.*4. Great oval-headed purple Trefoil. *Pl. 42. 12**Trifolium capitulis ovatis foliis acuminatis.*

The root is composed of a number of straggling fibres, of a reddish colour.

The stalks are numerous, tolerably upright, not very much branched, and a foot and half high.

The leaves are placed by threes on long and slender footstalks: they are narrow, long, and of a firm substance, not at all dented at the edges, of a deep green, and sharp-pointed.

The flowers are large and purple: they stand at the tops of the stalks in large oval heads.

The seed-vessel is short, and the seeds are few and brown.

It is found in the hilly pastures of Germany, and flowers in August.

C. Bauhine calls it *Trifolium spica oblonga rubra.*5. Hairy starry-headed Trefoil. *Pl. 42. 13**Trifolium capitulis stellatis hirsutum.*

The root is woody, long, brown, and spreading.

The first leaves are supported on long, slender footstalks: they are short, broad, and heart-fashioned, of a pale green, and hairy.

The stalks are numerous, weak, irregularly upright, and of a whitish colour.

The leaves on them are like those from the root.

The flowers are collected together in round heads at the tops of the stalks; and are small and purple, sometimes white, and, as Caspar Bauhine says, sometimes lightly yellow; but this I have not seen.

The cups spread out at the points, and have a starry appearance.

The seed-vessels are small, and the seeds brown. It is frequent at the foot of Mount Vesuvius, and in other warm parts of Europe. It flowers in August.

C. Bauhine calls it *Trifolium stellatum*; a name others have given to our *teasel*-headed kind.6. Burdock-headed Trefoil. *Pl. 42. 14**Trifolium capitulis personate.*

The root is small and fibrous.

The first leaves are numerous, and they are

N° 30.

supported on short, reddish footstalks: they are broad, short, and a little dented at the ends; and their colour is a faint green.

The stalks are numerous, weak, and not much branched: they are of a faint brown, and six or eight inches high.

The leaves on these perfectly resemble those from the root; but they have somewhat longer footstalks.

The flowers stand at the tops of the stalks in large, round, and rough heads, very much resembling small burs: they are of a faint purple.

The seed-vessels are slender, and the seeds few and small.

C. Bauhine calls it *Trifolium globosum repens.* J. Bauhine, *Trifolium glomerulis personate cberleri.*

It is found in the warmer parts of Europe, as in Italy, and in the south of France; but not frequent.

7. Bladder-Trefoil. *Pl. 42. 15**Trifolium capitulis tumidis flore rubello.*

This is a small, but very pretty plant.

The root is long, slender, and furnished with numerous fibres.

The first leaves are few, and presently fade: they are oblong, obtuse, of a yellowish green, and placed by threes upon short footstalks.

The stalks are numerous; and they lie upon the ground, and are divided into many branches.

The leaves on these are small, oblong, obtuse, and of a bright green.

The flowers are of a very beautiful bright red: they grow in little, round heads, supported on slender footstalks from the bosoms of the leaves.

When the flowers are fallen, the cups swell out into a kind of bladders; and the whole head somewhat resembles that of our *strawberry trefoil*.It is common in Portugal, and flowers in July. C. Bauhine calls it *Trifolium pratense folliculatum.* Others, *Trifolium Salamanticum.*8. Pale, long-leaved Trefoil, with fresh-coloured flowers. *Pl. 42. 16**Trifolium foliis pallidioribus angustis flosculis carneis.*

The root is slender, long, tough, and reddish; and it has many fibres.

The first leaves are numerous, and of a pale greyish green: they are supported on short footstalks; and are oblong, and sharp-pointed.

The stalk is round, upright, branched, and a foot high.

The leaves on it are long, narrow, and of a very pale green: they are sharp-pointed, not at all dented at the edges, and have short footstalks; at the bottom of which there is a membranaceous scabbard.

The flowers grow in large, round, and rough heads: they are small when examined singly, and of a faint purple, a little deeper than what we call *fresh-colour*.

It is frequent in the warmer parts of Spain, and flowers in August.

Morison calls it *Trifolium spicatum minus flore minore dilute rubente.*

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9. Great:

9. Great flowered purple Trefoil.

Trifolium Alpinum flore magno rubente. *Pl. 43. 17*

The root is thick, woody, brown, divided into many parts, and furnished with numerous fibres.

The first leaves are placed on long, slender, reddish footstalks; and they are very long, very narrow, and of a yellowish green: they are not at all serrated at the edges, but pointed at the ends.

The stalks are weak and small: they are of a pale green, not at all branched, and about six inches high.

Toward the bottom they have a leaf or two; but the rest is naked.

The flowers stand at the tops of the stalks in a very thick, short head; and they are large and purple.

The seed-vessel is short, and the seeds are few and brown.

It is a native of the Alps, and flowers in July.

Morison calls it *Trifolium purpureum Alpinum*. Others, *Trifolium Alpinum*.

10. Large yellowish-flowered Trefoil.

Trifolium majus flore flavescens. *Pl. 43. 10*

The root is long and white, divided into several parts, and furnished with numerous fibres.

The first leaves are supported on long, whitish footstalks: they are broad, short, of a fresh green; and on the under part each has a black spot.

The stalks are numerous, procumbent, and spreading: they are of a foot long, jointed, hollow, and of a pale colour.

The leaves on these resemble those from the root; but they are paler.

The flowers are large, and of a cream-colour; they stand in round loose heads on the tops of the stalks.

The seed-vessels are short and thick, and the seeds are brown.

It is frequent in the south of France, and flowers in August.

Morison calls it *Trifolium pratense caule fistuloso foliis subtus maculatis flore ochro leuco*.

It agrees with the rest in qualities, affording a good, wholesome, and nourishing food to cattle.

GENUS II.

HARESFOOT.

LAGOPUS.

THE flowers are papilionaceous and small. The vexillum is turned back. The alæ are short, and the carina is very small. The cup is as long as the flower, and is divided into five segments. The seed-vessel is short, and formed of a single valve; and the seeds are few. The head into which the flowers are collected, is oval and hairy; the hairs growing from the cups: and the leaves stand three together.

Linnaeus places this among the *diadelphia decandria*; the threads in the flower being ten, in two assortments. He confounds it with the common trefoil, and many other genera, under the common name *trifolium*. But this is erroneous; the hairyness of the heads is an obvious distinctive character of the genus; and the length of the cups, and their downy covering, which are both universal to all the kinds, are certain characteristics.

DIVISION I. BRITISH SPECIES.

1. Common Haresfoot.

Lagopus vulgaris. *Pl. 44. 1*

The root is small, oblong, and furnished with a few fibres.

The stalks are numerous, weak, branched, and not very upright: they are ten inches long, and of a pale reddish colour.

The leaves stand at distances, three together, with scarce any footstalks: they are small, narrow, blunt at the ends, and whitish.

The flowers are very small, and of a pale red: they stand in oval or oblong spikes or heads at the tops of the stalks, and the hairyness of their cups gives the whole a downy appearance, and whitish red colour.

The seed-vessels are very small, and the seeds are minute.

It is common in dry pastures, and flowers in July.

C. Bauhine calls it *Trifolium arvense humile spicatum sive lagopus*. Others, *Lagopus vulgaris*.

It is an astringent, and deserves to be brought into use in medicine. The whole plant dried and powdered, and given half a dram for a dose, is

good against loosenesses with bloody stools. The decoction answers the same purpose.

2. Dwarf Sea Haresfoot.

Lagopus pusillus maritimus. *Pl. 44. 2*

The root is long, slender, whitish, with a tinge of red, divided into several parts, and furnished with many fibres.

The stalks are numerous, and spread themselves upon the ground: they are of a pale reddish colour, very much branched, and three or four inches long.

The leaves are numerous: they grow in threes, without any footstalks; and they are narrow, sharp-pointed, of a pale green colour, and covered with a soft down.

The flowers grow in roundish heads of a very pale colour, white, with a tinge of purplish; and these stand in great number without footstalks in the bosoms of the leaves.

The seed-vessels are minute, and the seeds are brown.

It is not unfrequent on the coast of Sussex, and flowers in August.

Lobel calls it *Lagopus perpusillus supinus elegantissimus Anglicus*; and others take the same name from him.

DIVI.

DIVISION II. FOREIGN SPECIES.

1. Great Purple Haresfoot.

Lagopus purpureus maximus. *Pl. 44. 3*

The root is long, thick, brown, and furnished with a few fibres.

The first leaves rise on short footstalks; and are broad, short, and of a pale green.

The stalks are a foot and half high, of a pale colour, irregularly disposed, and branched.

The leaves on these are large: they are oblong, obtuse, of a pale green, and soft to the touch.

The flowers are singly, small, and of a faint whitish purple; but they are collected into long, thick, hairy spikes, two inches in length, and of a woolly aspect.

The seed-vessel is short; and the seeds are large, and of a shining brown.

It is common in Italy, and flowers in June.

C. Bauhine calls it *Trifolium spica subrotunda rubra*. Others, *Lagopus maximus flore rubro*.

2. Scarlet Haresfoot.

Lagopus flore ruberrimo. *Pl. 44. 4*

The root is long, brown, and furnished with a few fibres.

The stalks are numerous, slender, tolerably upright, and eight inches high: they are of a pale reddish colour, and very little branched.

The leaves stand three together, without footstalks, but with a kind of scabbard at the bottom: they are long, narrow, and of a dusky green.

The flowers grow at the tops of the branches in long and downy spikes, the hairs of which are much longer than in any other kind: they are small, and of a pale red.

The seed-vessels are short; and the seeds are few, large, and brown.

It is a native of Spain, and flowers in July.

Ray calls it *Lagopus flore ruberrimo*; a name copied from Parkinson, who first raised it in England.

GENUS III.

HOP TREFOIL.

TRIFOLIUM LUPULINUM.

THE flower is papilionaceous. The vexillum bends a little back, the alæ are short, and the carina is very small. The cup is little, hollow, and divided into five segments at the edge. The seed-vessel is short, and formed of a single piece; and the seeds are roundish. The flowers grow together in little heads resembling hops; and they fade soon, but remain with the cup to cover the seed-vessel.

Linnaeus places this among the *diadelphia decandria*, confounding it with the *haresfoot* and others, under the common name *trifolium*.

DIVISION I. BRITISH SPECIES.

1. Common Hop Trefoil.

Trifolium lupulinum vulgare. *Pl. 44. 5*

The root is composed of small fibres.

The stalks are numerous, slender, tolerably upright, of a pale yellowish green, and eight or ten inches high.

The leaves have short footstalks, and stand three on each: they are small, obtuse, of a yellowish green, and smooth.

The flowers are small and yellow: they are placed together in little heads at the tops of the branches, resembling ripe hops.

The seed-vessel is short, and the seeds are small and brown.

It is common in our pastures, and flowers in July.

C. Bauhine calls it *Trifolium pratense luteum capitulo lupuli vel agrarium*. Others, *Trifolium lupulinum vulgare*, and *Trifolium lupulinum majus*.

2. The lesser Hop Trefoil.

Trifolium lupulinum minus. *Pl. 44. 6*

The root is composed of small fibres.

The stalks are numerous, weak, straggling, branched, very irregular in their growth, and

ten inches high: they are usually naked toward the bottom; but the leaves stand frequent toward the top.

They have short footstalks, on which they stand in threes: they are small, and heart-fashioned, and of a faint green.

The flowers are small and yellow: they grow together in little heads on small footstalks.

The seed-vessel is short, and the seeds are small and brown.

It is common in our pastures, and flowers in July.

Ray calls it *Trifolium lupulinum alterum minus*. J. Bauhine, *Trifolium luteum flore lupulino minus*.

3. The least Hop Trefoil.

Trifolium lupulinum minimum. *Pl. 44. 7*

The root is long, slender, divided into several parts, and furnished with numerous fibres.

The stalks are numerous, weak, branched, and about three inches in length; and they commonly lie upon the ground.

The leaves stand three together, with very short footstalks, and a kind of scabbard at the base: they are broad, short, a little heart-fashioned, and smooth.

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The flowers are small and yellow; and they grow in little clusters, rarely more than two or three together.

The seed-vessels are very small, and the seeds minute.

It is frequent in dry pastures, and flowers in July.

Ray calls it *Trifolium lupulinum minimum*; a name used also by most others.

DIVISION II. FOREIGN SPECIES.

Hop Trefoil with serrated leaves.

Trifolium lupulinum foliis dentatis. *Pluk. 101*

The root is long, slender, brown, and hung with many redish fibres.

The stalks are numerous, upright, of a pale green, a foot and half high, and not much branched.

The leaves stand at considerable distances by threes, and they have slender footstalks: they are

of an oval figure, sharply serrated at the edges, and of a faint green.

The flowers are small, and of a faint brownish yellow: they stand together in oval heads, which are formed of brown cups.

The seed-vessels are short, and the seeds brown and large.

It is frequent in hilly places in the warmer parts of Europe.

C. Bauhine calls it *Trifolium montanum lupulinum*.

GENUS IV.

MELILOT.

MELILOTUS.

THE flower is papilionaceous, and small. The vexillum is bent back, the alae are short, and the carina is small. The seed-vessel is a pod, formed of a single piece, and is longer than the cup. The cup is hollowed at the base, and divided into five segments at the edge. The leaves stand three together, and the flowers are produced in loose spikes.

Linnaeus places this among the *diadelphia decandria*; the threads being ten, in two assortments. But he creates much confusion, by joining it with the *lagopus*, and other three-leaved plants, under the common general name of *trifolium*.

DIVISION I. BRITISH SPECIES.

1. Common Melilot.

Melilotus vulgaris. *Pluk. 109*

The root is long, slender, redish, divided into several parts, and hung about with fibres.

The stalks are numerous, round, of a fresh green, upright, branched, and a yard high.

The leaves stand in threes, and have slender footstalks: they are oblong, sharp-pointed, and of a fresh and delicate green.

The flowers are small, and of a gold yellow: they stand in loose spikes of a considerable length at the tops of the stalks, and on pedicles rising from the bosoms of the leaves.

The seed-vessel is oblong, and the seeds are large and brown.

It is common in many parts of England in pasture-grounds, and under hedges; and sometimes gets among the corn, unhappily for the farmer. It flowers in July.

C. Bauhine calls it *Melilotus officinarum Germaniae*. Others, *Melilotus vulgaris*.

It is famous as a resolvent and digestive, outwardly applied.

In pultices it will be of great use against hard swellings, ripening them, and at the same time taking off the pain.

The old authors have written much of it; and many years it was an ingredient in the plaster used for dressing blisters. At present it is rejected from that composition; not for its want of efficacy, but to prevent mischievous frauds; those who made the plaster frequently putting in verdigrease, to give the colour which would not be obtained from the plant but with considerably more trouble.

2. Small Melilot.

Melilotus odoratus flore caeruleo.

The root is small, and furnished with many fibres.

The stalks are numerous, erect, branched, and ten inches high.

The leaves stand in threes; and they are short, broad, and of a pale green.

The flowers are small and yellow: they stand in oblong heads at the tops of the stalks, and on pedicles rising from the bosoms of the leaves.

The seed-vessels are small, and very numerous: they hang in a kind of loose spike.

It is common in our pastures, and flowers in August.

Tragus calls it *Melilotus minor*. Others improperly, *Trifolium lupulinum minus semine multo*.

DIVI-

DIVISION II. FOREIGN SPECIES.

1. Sweet Trefoil.

Melilotus odoratus flore caeruleo. *Pluk. 101*

The root is long, slender, and furnished with a few fibres.

The stalk is round, upright, branched, and two feet high: it is of a pale green, and hollow.

The leaves stand on long footstalks, three on each: they are oblong, moderately broad, of a beautiful green, and serrated at the edges.

The flowers stand in small heads at the tops of the branches; and they are of a beautiful sky-blue, and very sweet.

The seed-vessels are small, and the seeds are few and brown.

It is common wild in Spain; and in other places is cultivated for the fragrance and lasting scent of the flowers.

C. Bauhine calls it *Lotus hortensis odora*. Others, *Trifolium odoratum*.

2. Italian Melilot.

Melilotus foliiculis majoribus. *Pluk. 101*

The root is long, thick, redish, and furnished with numerous fibres.

The stalks are round, upright, firm, branched all the way up, and near a yard high.

The leaves have long, slender footstalks, and stand three on each: they are short, broad, and of a faint green toward the bottom; but longer, narrower, and of a more lively colour toward the top of the plant.

The flowers stand on the tops of the branches in long, loose spikes; and they are small and yellow.

The seed-vessels are swollen, roundish, and rough: the seeds are few and large, and of a glossy brown.

It is frequent in the warmer parts of Italy, and flowers in June.

C. Bauhine calls it *Melilotus Italica foliiculis rotundis*.

3. Sweet Melilot with hooked pods.

Melilotus odoratus filiquis falcatis. *Pluk. 101*

The root is long, thick, redish, and divided into several parts.

The stalks are numerous, upright, branched; and four feet high: they are of a yellowish green, striated, and hollow.

The leaves have long footstalks, and they stand three on each: these are oblong, moderately broad, serrated, sharp-pointed, and of a fresh and elegant green.

The flowers stand in loose spikes at the tops of the stalks and branches, and are of a pale yellow.

The seed-vessels are long, slender, and hooked upwards: the seeds are of a glossy brown.

It is common in the warmer parts of Europe, and the East. The flowers in the hottest countries have the most fragrant smell.

C. Bauhine calls it *Melilotus corniculatus reflexis major*. Others, *Melilotus Syriaca*, and *Melilotus Syriaca odora*.

GENUS V.

FÆNUGREEK.

FÆNUM GRÆCUM.

THE flower is papilionaceous. The vexillum is turned back; the alae are small, and turned outwards; and the carina is very short. The three upper petals seem to make a regular three-leaved flower, and this fourth is placed in the centre. The cup is short, hollowed, and lightly divided into five segments. The seed-vessel is oblong, and somewhat flattened: the seeds are numerous and roundish.

Linnaeus places this among the *diadelphia decandria*; the threads in the flower being ten, in two assortments. He rejects the received name *Fœnum Græcum*, and calls the genus *Trigonella*. The ancient name is but ill constructed; but as it is universally understood, and the plant has virtues worth regarding, which are spoken of by early authors under this old name, we have preserved it.

DIVISION I. BRITISH SPECIES.

Small wild Fœnugreek.

Fœnum Græcum pumilum repens. *Pluk. 101*

The root is long, thick, divided into several parts, and hung with numerous fibres.

The stalks are irregular and numerous: they are four or five inches long, and they spread upon the ground: they are of a pale colour, branched, and tough.

The leaves stand by threes on long, slender footstalks, with a skin or membranous sheath at

the bottom: they are small, of an oval figure, of a dead green, and lightly serrated at the edges.

The flowers are large, and of a pale purple: they stand two or three together, upon slender footstalks rising from the bosoms of the leaves.

The seed-vessels are thick and short; and they are full of brown, large seeds.

It is common in barren grounds, and flowers in June.

Ray calls it *Fœnum Græcum humile repens ornithopodii filiquis brevibus erectis*.

Nº XXXI.

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DIVIS

DIVISION II. FOREIGN SPECIES.

Common Fenugreek.

Fenum Græcum vulgare. Pl. 44. 14

The root is long, slender, and full of short fibres.

The stalks are numerous, thick, very much branched, and of a pale green: they are a foot and a half long, but not regularly upright.

The leaves are placed in threes on long footstalks: they are oblong, broad, and obtuse at the ends; and they are of a dusky green on the upper side, and of a whitish colour underneath.

The flowers stand on short footstalks in the bosoms of the leaves: they are large and white, sometimes tinged a little with a faint purple.

The feed-vessel is long, and the seeds are yellow and large.

It is a native of the East, but is frequently sown for use.

C. Bauhine calls it *Fenum Græcum sativum*. Others plainly *Fenum Græcum*.

The seeds contain the virtue of the plant; and they are used externally with great success: they are emollient and anodyne. They boil to a mucilage; which, whether used alone, or mixed in ointments or cataplasms, is excellent against hard swellings, and against pain.

It is recommended by many in the sciatica, applied outwardly, warm, and frequently repeated; and it is excellent against swellings in the breasts. The ointment of marshmallows owes a great deal of its emollient virtue to the seeds of the *fenum-greek*.

G E N U S VI.

RESTHARROW.

A N O N I S.

THE flower is papilionaceous. The vexillum is of a heart-like shape, and depressed at the sides. The alæ are of an oval form; and they are not of more than half the length of the vexillum. The carina is sharp-pointed, and it is somewhat longer than the alæ. The cup is divided into five parts, and is of the length of the flower. The feed-vessel is short, swelled, and hairy; and the seeds are kidney-shaped, and few.

Linnaeus places this among the *diadelphia decandria*; the threads of the flower being ten, in two assortments. He places many of the trifoliate plants in one common genus; but this he separates more justly.

DIVISION I. BRITISH SPECIES.

1. Common prickly Restharrow.

Anonis spinosa vulgaris. Pl. 44. 15

This is not a large, but it is a very tough, spreading plant.

The root is long, thick, and firm: it is so difficult to tear out of the ground, or to break, that it often stops the instruments of husbandry; whence its English name.

The stalks are numerous, tough, firm, and covered with a redish bark: they are a foot and half long, they lie spread upon the ground, and they are full of very sharp and strong prickles.

The leaves are numerous, and of a bright green: they grow by threes without footstalks; and they are oblong, narrow, sharp-pointed, and serrated at the edges.

The flowers stand on short footstalks rising from the bosoms of the leaves; and they are of a bright purple.

The feed-vessels are short, and the seeds are numerous and brown.

It is common by way-sides, and flowers in August.

C. Bauhine calls it *Anonis spinosa flore purpureo*. Others, *Anonis vulgaris, sive resta bovis, and Resta bovis purpurea*.

2. Purple Restharrow without thorns.

Anonis non spinosa purpurea. Pl. 44. 16

The root is long, and very tough, and is of a whitish colour.

The stalk is firm, hard, upright, and of a pale green.

The leaves stand irregularly on it; and are oblong, moderately broad, dented at the edges, and of a pale green, and a little hairy.

The flowers stand in the bosoms of the leaves on short footstalks; and are large, and of a beautiful red.

The feed-vessel is short, and the seeds are large and brown.

It is a native of tough soils, and common in most parts of England. It flowers in July.

C. Bauhine calls it *Anonis spinis carens purpurea*. Others, *Anonis non spinosa flore purpureo*.

3. White Sea Anonis.

Anonis maritima pubescens.

The root is long, slender, white, and tough.

The stalks are numerous, branched, of a firm substance, and of a whitish colour.

The leaves are numerous and small: they are oblong, broad, and covered with a white woolly matter.

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The flowers stand in the bosoms of the leaves; and are of a pale red, with some white.

The feed-vessel is small, and the seeds are minute.

It is common on our sea-coasts, and flowers in July.

Ray calls it *Anonis procumbens maritima nostras foliis hirsutis pubescentibus*. Others, *Anonis maritima*.

DIVISION II. FOREIGN SPECIES.

1. Yellow Restharrow without thorns.

Anonis flava non spinosa.

The root is long, tough, and spreading.

The stalks are round, upright, very much branched, and a foot and half high.

The leaves stand on slender footstalks, three on each; and they are long, narrow, of a pale green, and a little hairy, and dented at the ends.

The flowers stand on long footstalks, and are large and yellow: they grow from the bosoms of the leaves.

The feed-vessels are large, and the seeds numerous and brown.

It is a native of the East, and of the warmer parts of Europe. It flowers in July.

C. Bauhine calls it *Anonis viscosa spinis carens lutea major*. Others, *Anonis non spinosa lutea*.

The whole plant is clammy to the touch, and has a very strong smell. The flowers are sometimes striated.

2. Yellow Restharrow with drooping flowers.

Anonis lutea floribus pendulis. Pl. 44. 17

The root is long, thick, and spreading.

The stalks are numerous, low, woody, very much branched, and covered with a redish bark.

The leaves are placed in threes on moderately long footstalks; and they are short, obtuse, and hairy.

The flowers stand on slender, weak, and crooked or twisted footstalks, two on each: they are of a mixed brown and yellowish colour; and their cups are very hairy.

The feed-vessels are long and large, and the seeds are kidney-like, and brown.

It is common in Italy, and flowers in August.

C. Bauhine calls it *Anonis viscosa minor flore pendulo*.

G E N U S VII.

MEDICK.

M E D I C A.

THE flower is papilionaceous. The vexillum is turned backwards: it is of an oval figure, undivided, and turned at the edges outwards. The alæ are oblong, and their sides converge under the carina, to which part they are fixed by a small appendage. The carina is oblong, split, and turned back. The cup is formed of a single piece; and is hollow, and divided into five equal segments at the edge. The feed-vessel is long, flattened, and more or less crooked, twisted, or wound round itself.

Linnaeus places this among the *diadelphia decandria*; the filaments being ten, in two assortments. He alters the name, writing it *medicago*.

DIVISION I. BRITISH SPECIES.

1. Yellow Medick, with flat, wreathed pods.

Medica sylvestris flore flavo. Pl. 45. 1

The root is long, thick, and spreading, and it remains many years.

The stalks are numerous, and of a tough, firm, and, as it were, woody substance: they are two feet in length, very much branched, and spread irregularly, in great part lying upon the ground.

The leaves stand on long footstalks, three on each;

each; and they are oblong, narrow, of a yellowish green, and dented toward the ends.

The flowers stand in little clusters at the tops of the stalks, and are of a bright yellow.

The seed-vessels are flat, and a little turned about: the seeds are few, and angulated.

We have it in our hilly pastures, but not common. It flowers in July.

C. Bauhine calls it *Trifolium luteum sylvestre lignea sive frutescens*. Others, *Medica sylvestris*.

2. Common Heart-Trefoil.

Medica folio cordato maculato. Pl. 45. 2

The root is long, slender, and furnished with numerous fibres.

The first leaves are placed on long, slender footstalks, three on each; and they are of a heart-like shape, and each has a black spot in the middle.

The stalks are numerous, procumbent, and a foot long: they are slender, and of a pale green. The leaves on these resemble those from the root: they are also spotted.

The flowers are small and yellow.

The seed-vessels are remarkable in their form and aspect: they are rough, and twisted in a singular manner. The seeds are large and few.

It is common in pastures, and flowers in July.

C. Bauhine calls it *Trifolium folio cordato maculato*. Others, *Trifolium cordatum*, and some *Medica Arabica Camerarii*.

3. Little Hedgehog Trefoil.

Medica echinata minima. Pl. 45. 3

The root is composed of numerous fibres.

The stalks are weak, slender, procumbent, and four or five inches long.

The leaves are few, and placed irregularly: they stand by threes on slender footstalks; and are of an oval figure, but sharp-pointed, and of a fresh green.

The flowers are small and yellow: they stand in little clusters at the tops of the stalks, and in the bosoms of the leaves.

The seed-vessel is small, but rough, and, as it were, prickly; whence the plant has obtained its common English name.

The seeds are angulated, and brown.

We have it in barren, hilly pastures. It flowers in June.

C. Bauhine calls it *Trifolium arvense fructu minore*. Others, *Medica echinata minima*, and *Medica spinosa*.

4. Prickly-edged Medick. Pl. 45. 4

Medica fructu ad margines spinoso.

The root is long, slender, and furnished with a few fibres.

The first leaves are placed on long footstalks, three on each; and they are broad, short, obtuse, somewhat heart-fashioned, but with a slight dent, and of a fine lively green.

The stalks are numerous, slender, and ten inches high.

The leaves stand at distances, and are like those from the root.

The flowers are small and yellow: they stand on slender footstalks rising from the bosoms of the leaves.

The seed-vessel is twisted round, and has an edge of stiff bristles.

We have it in the southern counties very frequent on sandy ground, and in some other places. It flowers in July.

Ray calls it *Trifolium coccineatum modiolis spinosis*. The old writers knew it not.

5. Black-fruited Medick:

Medica polycarpus fructu compresso nigricante.

The root is slender, oblong, white, and has a few fibres.

The first leaves are placed by threes on slender footstalks; and they are small and obtuse.

The stalks are slender, not much branched, of a faint green, and eight inches high.

The leaves on these resemble those from the root, but are smaller.

The flowers are small and yellow: they stand in great numbers on slender footstalks rising from the bosoms of the leaves.

The seed-vessels are compressed, and blackish.

We have it in dry pastures, but not common. It flowers in June.

Ray calls it *Medica polycarpus fructu minore compresso scabro*.

6. Prickly Sea-Medick.

Medica maritima spinosa.

The root is small and oblong.

The stalks are numerous, weak, procumbent, and eight or ten inches high.

The leaves are placed by threes on short footstalks; and they are short, broad, obtuse, and of a bright green.

The flowers are small and yellow.

The fruit is twisted and prickly.

The stalks of the plant are usually purple toward the root; and the tops of the shoots are hairy.

It is found about our sea-coasts, and flowers in July.

Ray calls it *Medica marina supina nostras foliis viridibus ad summos ramulos villosis*.

DIVISION II. FOREIGN SPECIES.

1. Lucerne. Pl. 45. 5

Medica sativa flore purpureo. Pl. 45. 5

The root is very long, and lives many years.

The stalks are numerous, firm, upright, much branched, and two feet or more in height: they are smooth, and of a pale green.

3

The leaves are placed very thick; and they are disposed, as in the others, three on a stalk: they are oblong, sharp-pointed, and slightly serrated: their colour is a fresh green.

The flowers are small, and of a beautiful violet-colour: they are placed half a dozen together at the tops of the stalks, and on slender

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der pedicles rising from the bosoms of the leaves.

The seed-vessels are small and twisted.

It is a native of the warmer parts of Europe, and flowers in May.

All authors call it *Medica sativa*, and *Fanum Burgundicum*.

The name *lucerne*, now applied to this plant, was at one time given by the French to the cock-head, and its former name *saintfoin* was given to this. There is no saying which is right, for both are arbitrary; and it is not easy to discover which was the original application.

The ancients were very fond of this plant as fodder for their cattle. We read with astonishment the pains they bestowed upon its culture. From the ancient the knowledge travelled to the modern Italy, and thence to France and Flanders: of very late years we have got into the use of it in England; and it is one of the greatest of the modern improvements in husbandry.

It is a rich and excellent food for all kinds of cattle.

The common wild medicas possess in general the same qualities, but in an inferior degree. They enrich pastures wherein they grow; and a good use might be made of them, by scattering the seeds among the grafs in grounds not very fertile.

2. Snail-Trefoil.

Medica fructu coccineato levi. Pl. 45. 6

The root is long, slender, and furnished with numerous fibres.

The first leaves are placed on small footstalks, and grow, as in the others, three on each: they are oblong, moderately broad, sharp-pointed, serrated at the edges, and of a lively green.

The stalks are numerous, slender, branched, a foot or more in length, but not very upright.

The flowers stand on slender footstalks rising from the bosoms of the leaves, and they are yellow.

The seed-vessel is very large, smooth, of a pale green, and twisted in the manner of a snail.

The seeds are few and large.

It is a native of Italy. We sow it in gardens for the singularity of the fruit.

C. Bauhine calls it *Trifolium coccineatum fructu rotundiori*.

3. Caterpillar-Trefoil.

Medica fructu convoluto aspero. Pl. 45. 7

The root is long, slender, and hung with many fibres.

The stalks are numerous, weak, slender, branched, and a foot or more in length.

The leaves stand thick upon them, three at each joint, on a long, slender footstalk: they are short, broad, obtuse, and of a somewhat oval form, but inverted, or with the smaller part below.

The flowers are little and yellow.

The seed-vessels are large, twirled about, and rough; so that they have the appearance of a green, hairy caterpillar rolled up.

It is a native of the East, and of the warmer parts of Europe. We keep it in gardens.

C. Bauhine calls it *Trifolium fructu compresso spinis horrido*.

From this and the former species the industry of our gardeners has raised a vast many varieties, which have been described by many as distinct species. This is the common error: but Linnæus is in the extreme on the other side. He rightly retrenches many; but he makes both these and the common wild kind the same species. This is plainly an error; because the form of the leaves, as well as the fruit, differ.

4. Moon-Trefoil.

Medica siliquis lunatis. Pl. 45. 8

The root is long and slender, and has very few fibres.

The stalks are numerous, weak, and of a pale green: they are a foot high, and branched.

The leaves have long, slender pedicles; three stand on each: they are oblong, broad, dented, and of a fine green.

The flowers are small and yellow: they stand on short, small footstalks in the bosoms of the leaves.

The seed-vessel is broad, flat, and notched at the edges: it is turned round; so that it represents a new moon. The seeds are few and brown.

It is found about the edges of vineyards in Italy.

C. Bauhine calls it *Trifolium siliqua foliata*. Others, *Trifolium lunatum*.

5. Scrubby Moon-Trefoil.

Medica siliquis lunatis frutescens. Pl. 45. 9

The root is woody, long, divided, and spreading.

The stem also is woody, tough, and very much branched: the trunk is covered with a grey bark, but the twigs are green or greyish.

The leaves stand on long footstalks, three upon each: they are oblong, obtuse, and largest at the ends; and are of a greyish green.

The flowers grow three together usually on slender footstalks, and they are small and yellow.

The seed-vessel is flat, and turned round in form of a crescent; but it is smooth on the edge, not nicked as the preceding.

The seeds are large, angulated, and brown.

It is a native of the East, and flowers in August.

Authors have mistaken its proper genus: they have in general ranged it among the *Cytisi*.

C. Bauhine calls it *Cytisus incanus siliquis foliatis*. Lobel, *Cytisus maranta*; a name copied by most others.

G E N U S IX.

BIRDSFOOT TREFOIL.

L O T U S.

THE flower is papilionaceous. The vexillum is roundish, and bends downward; and it has a long, hollow bottom. The alae are short, broad, obtuse, and converge upwards. The carina is rounded below, closed above, short, sharp-pointed, and turned upwards. The cup is formed of a single piece: it is hollow, and is divided into five regular segments. The seed-vessel is long and slender, and the seeds are numerous and roundish. The leaves stand three on each footstalk, as in the preceding genera; but there are also two small ones on the stalk, at the infertion of the footstalk of the others.

Linnæus places this among the *diadelphia decandria*; the threads of the flower being ten, in two assortments.

DIVISION I. BRITISH SPECIES.

1. Common Birdsfoot Trefoil.

Lotus corniculata glabra minor. *Pl. 45. 10*

The root is long, and furnished with many fibres.

The stalks are numerous, slender, firm, and branched: they are usually of a redish colour, and are ten inches high.

The leaves are of a fine strong green: three stand on a long footstalk, and two at its base: they are oblong, and sharp-pointed.

The flowers stand in clusters at the tops of slender footstalks, rising from the bosoms of the leaves; and they are small and yellow.

The pods are strait, slender, and long. It is common in our pastures, and flowers in August.

C. Bauhine calls it *Lotus pentaphyllus minor glabra*.

2. Narrow-leaved Birdsfoot Trefoil.

Lotus corniculata angustifolia glabra.

The root is long and slender.

The stalks are numerous, and very much branched: they are firm, upright, and six inches high.

The leaves stand three on a footstalk, and two at the base of it: they are narrow, of a fresh green, and sharp-pointed.

The flowers are small and yellow: they stand, as in the other, on long footstalks, six or eight together.

The seed-vessels are long, slender, and brown.

The plant distinguishes itself at first sight from the common kind by its upright, bushy aspect.

We have it in corn-fields, where the soil is clayish. It flowers in August.

Ray calls it *Lotus pentaphyllus minor angustifolius foliis fruticosis*.

3. Great Birdsfoot Trefoil.

Lotus corniculata hirsuta major.

The root is composed of numerous, slender fibres. The stalks are weak, of a pale colour, a little hairy, not much branched, and a foot or more in height.

The leaves are numerous and large: three stand on each footstalk, and two at its base: they are oblong, broad, of a pale green, and lightly hairy.

The flowers are large and yellow, with a tinge of orange-colour: they stand in little tufts at the tops of the pedicles, which rise from the bosom of the leaves.

The seed-vessel is long, slender, and brown.

It is frequent in damp places, and flowers in August.

C. Bauhine calls it *Lotus pentaphyllus flore majore luteo splendente*. Others, *Lotus corniculata hirsuta major*.

The leaves of this plant are sometimes very little hairy, and of a brighter green. In this state it is described in Dillenius's edition of the Synopsis as a new species; but it is a variety owing only to its growing on a drier soil.

4. Dwarf Birdsfoot Trefoil.

Lotus corniculata minima foliis subtilis hirsutis.

The root is composed of a few slender threads.

The stalks are numerous, weak, and procumbent: they are of a redish colour, and three or four inches long.

The leaves stand three on a footstalk, and two at its base: they are short, roundish, but terminated by a point; and of a blackish green above, and white and hairy underneath.

The flowers are small and yellow: the pods are very slender and brown.

We have it in dry, hilly pastures, especially where the soil is chalky. It flowers in July.

Ray calls it *Lotus corniculata minor foliis subtilis incanis*.

DIVISION II. FOREIGN SPECIES.

1. Square-podded Lotus.

Lotus filiqua quadrata flore rubro. *Pl. 45. 11*

The root is long, and furnished with many fibres.

The stalks are numerous and weak: they spread every way upon the ground; and are branched, and of a pale green, a little hairy, and a foot and half long.

The flowers are placed at distances: three grow upon

upon a short footstalk, and two at its base: they are of a dusky green colour, and soft to the touch.

The flowers stand on pedicles rising from the bosoms of the leaves, two usually on each; and they are large and beautiful: their colour is crimson, and they have a look of velvet.

The pods are short and thick, and have four membranous edges, which give them a square aspect.

The seeds are large and yellowish.

It is a native of Spain, but is in some parts of England cultivated in gardens for the sake of the seeds, which are pleasant and wholesome. Many eat them in the manner of pease.

C. Bauhine calls it *Lotus ruber filiqua angulosa*. Our people, *Crimson-pea*, or *Velvet-pea*.

2. Small square-podded Lotus.

Lotus filiqua quadrata minor. *Pl. 45. 12*

The root is long, thick, and furnished with many fibres.

The stalks are numerous, weak, and branched: they are eight or ten inches long, of a pale green, and a little hairy.

The leaves stand three on a very short footstalk, and two at its base: they are oblong, moderately broad, of a pale green, hairy, and sharp-pointed.

The flowers are large and yellow: they stand on long, slender footstalks, sometimes two together, sometimes singly. In some places they are striped, but not universally.

The seed-vessel is long and slender: the seeds are numerous and brown.

It is common in Italy, and the south of France. It flowers in July.

C. Bauhine calls it *Lotus pratensis filiquosus luteus*. Others, *Lotus quadrata filiqua flore luteo*.

3. Great-podded Lotus.

Lotus filiqua crassiflora. *Pl. 45. 13*

The root is long, slender, and furnished with a few fibres.

The stalks are numerous, weak, but tolerably upright, and a foot high.

The leaves are broad, short, and sharp-pointed: they stand three on a footstalk, with two at the base of it; and they are of a pale green, and a little hairy.

The flowers stand singly on long, slender footstalks; and are large and yellow.

The pod is very large, and hangs down.

The seeds are large and well-tasted.

It is a native of Crete, and flowers in August.

C. Bauhine calls it *Lotus pentaphyllus filiqua cornuta*.

3. Cluster-flowered Lotus.

Lotus floribus fasciculatis. *Pl. 45. 14*

The root is long, thick, and furnished with numerous fibres.

The stalks are firm, upright, and two feet high: they are smooth, branched, and of a pale green.

The leaves stand three on a footstalk, with two

at its base: they are oblong, broad, sharp-pointed, and of a pale green.

The flowers are separately very small; but they stand in thick tufts, and make a very conspicuous shew: they are white, variegated with a little purple.

The seed-vessel is long and slender, and the seeds are roundish.

C. Bauhine calls it *Lotus filiquosus glaber flore rotundo*.

It is a native of the warmer parts of Europe, and flowers toward the end of summer.

5. Hairy, white-flowered Lotus.

Lotus hirsutus flore albo. *Pl. 45. 15*

The roots are woody, tough, and spreading.

The stalks are also woody, and three or four feet high: they are very much branched, and covered with a brown bark in the lower parts, and green in the upper.

The leaves are very numerous and small: they are placed three together, with scarce any footstalks, and two at the base: they are oblong, hairy, sharp-pointed, and of a pale green.

The flowers grow in little tufts at the tops of the branches, and are small and white.

The seed-vessels are small also, and brown.

It is frequent in the south of France, and flowers in August.

C. Bauhine calls it *Lotus pentaphyllus villosus*. Others, *Trifolium hemorrhoidale majus*.

6. Great-flowered woolly Lotus.

Lotus lanuginosus flore majore albicante. *Pl. 45. 15*

The root is woody, tough, divided, and spreading.

The stalks are numerous, shrubby, and firm; and the whole plant has a white, woolly aspect.

The leaves stand three together, with two others at the base. This is the proper and perfect manner of their growth; but sometimes one or both the lower ones are wanting.

They are short, broad, and white, and are covered with a kind of woolly matter.

The flowers are large and white: they stand in little roundish clusters on the tops of very slender footstalks.

The seed-vessel is long and slender: the seeds are roundish.

It is a native of all the warm parts of Europe, and flowers in July.

C. Bauhine calls it *Lotus pentaphyllus incanus*.

Others, *Dorycnium Montpelienisum*; and the English writers, *Poisonous trefoil of Montpellier*.

7. Bushy-top'd white Lotus.

Lotus floribus confertis albidis vel carneis. *Pl. 45. 16*

The root is long, thick, divided, and spreading.

The stem is covered with a brown bark: it grows to the height of four feet in a shrubby manner, and the young twigs are greyish.

The leaves stand three together, with two smaller at their bases; and they are narrow, sharp-pointed, and of a pale green.

The flowers are small, but very numerous: they stand in round clusters at the tops of the stalks

stalks and branches; and they are usually white, sometimes redish.

The seed-vessels are slender and long.
It is a native of Spain, and flowers in August.

C. Bauhine calls it *Trifolium album angustifolium floribus veluti in capitulum cohesis*. Others, Spanish *dorycnium*, *Dorycnium Hispanicum*, and *Dorycnium flore minore*.

8. Long-podded Lotus.

Lotus filiquis longissimis. Pl. 45. 17

The root is long and divided.

The stalks are numerous, firm, and not much branched.

The leaves are disposed in a regular manner, and placed at agreeable distances on the plant: three stand together, and two at their base: they are oblong, obtuse, and white.

The flowers are long and slender, and their colour is a beautiful gold yellow: three usually stand together.

The seed-vessel is very large, and the seeds are numerous and brown.

It is a native of the Greek islands, and flowers in August.

Plukenet calls it *Lotus argentea Cretica*; and others follow him.

The END of the EIGHTEENTH CLASS.

8



9. Great scarlet-flowered Lotus.

Lotus flore magno coccineo. Pl. 45. 19

The root is long, spreading, and furnished with numerous fibres.

The stalks are robust, upright, and brown; and the plant has a shrubby appearance.

The leaves are large: three stand on a short footstalk, and two at the base: they are oblong and obtuse, and of a greyish green.

The flowers stand on slender footstalks rising from the bosoms of the leaves, two on each: they are very large, and of a beautiful scarlet.

The seed-vessels are long and brown.

It is a native of Africa, and flowers in July.

Plukenet calls it *Lotus fruticosior Africana foliis incanis floribus binis amplis coccineis*.

The common kinds of *lotus* are gently astringent. Two or three kinds have been called *hemorrhoidales*, from their effect in stopping the bleeding of the piles: but their virtues in that respect are not very considerable. The Spanish and French kinds, called *dorycnium*, are accounted poisonous.

Mr. Ray, by an oversight, adds to this class the plant called *climbing fumitory*, the *fumaria clavicularis donata*: but that is properly a species of the genus whose name it bears, *fumaria*; and will be described in its place among the plants of that title, which belong to a different class.

THE

THE

BRITISH HERBAL.

CLASS XIX.

Plants whose fruit is a berry; consisting of a skin or rind, surrounding a soft pulpy or juicy matter, within which are the seeds.

Neither the flower, nor any other part of these herbs, needs to be named for establishing a classical character; this peculiarity of the fruit being the most obvious, certain, and invariable mark that could be chosen. It happily keeps together the whole number of these plants, separating them from all others: this is the design and sole end of classical divisions; and it has the advantage of being short, plain, and simple; which is the best circumstance that can attend them. If the characters of all classes were as natural as this, there would be little difficulty in forming a good and perfect system of botany, or in the attainment of the science.

Mr. Ray, and with him the generality of writers, led by nature and by reason, have thus constituted the berry-bearing plants as a distinct and separate class. But it is not so in the method of Linnaeus; for they are arranged in the most different and most remote classes, and scattered over all his work. Any one would say, from the slightest observation, and nature would confirm it from the deepest search, that nightshade and bryony, and lilly of the valley and Solomon's seal, and the rest of these were allied to one another; and the student would hope he should find them together. It is fit he should so find them, and he will here: but in that author he must seek each in its separate place.

Linnaeus established a system in which the characters of classes were to be taken from the number and arrangement of the threads in the flower: therefore, where Nature, as in the present instance, fixes the character in the fruit, he rejects the distinction.

Accordingly nightshade stands among his *pentandria monogynia*, because the threads are five, and the style single; and it is there mixed with henbane, and campanula, because their threads are in the same number; and bryony is thrown among the *monacia syngenesia*, sixteen classes off, because there are male and female flowers in a peculiar manner on the same plant.

The dwarf honeysuckle is placed among the *tetrandria*, because its threads are only four, and it is there mixed with plantain. The lilly of the valley and asparagus are ranged under the *hexandria*, because of their six threads, and mixed among the bulbous plants. The vaccinium, because its flower has eight threads, is joined with rue; the willow-herb is placed under the *octandria*, and the moschatellina in the same class, keeps company with bistort and arismart.

These are English plants, and familiar ones: we need carry the search no farther. The purpose of method and system is to introduce regularity into a science; but the result of such combinations can be only confusion. Nature sports and wantons in these lesser parts; and therefore, though fit to be regarded in description, they are most improper for the construction of classical characters. No instance can shew this more strongly than the separation of the bacciferous plants.

S E R I E S I.

Natives of BRITAIN.

Those of which one or more species are naturally wild in this country.

G E N U S I.

WHITE BRYONY.

BRYONIA.

THE flower is composed of a single petal, hollowed like a bell, and divided into five segments, of an oval form, at the rim. The cup is formed of a single piece, hollowed like the flower, and divided also into five segments, which are narrow, and sharp-pointed. The fruit is a berry, of a somewhat oval form. There are distinct male and female flowers on the plant; but they agree in these characters. The disposition of the internal part only varies: in the male flowers there are three stamina or threads, two of which have double buttons: and in the female there is a style from the rudiment of the fruit, which is divided into three parts at the top.

Linnaeus places this among the *monœcia syngenesia*, for the sake of these particularities, far removing it from the other berry-bearing plants, as we have observed. This is an instance, that although the distribution of the internal or small parts of flowers be very worthy notice, it is not a foundation for classifical distinctions.

DIVISION I. BRITISH SPECIES.

1. Common White Bryony.

Bryonia alba. *Pl. 461*

The root is vastly large, and of a dusky whitish colour.

The stalks are numerous, weak, and trailing: they are rough to the touch, and of a pale green: they would naturally lie on the ground; but, as the plant commonly grows in hedges, they are supported, and will run to twelve feet in length, sending out numerous spiral tendrils, by which they lay hold of every thing they come near.

The leaves are large, and of a beautiful shape: they are broad, cornered, and in some degree like those of the vine, but longer pointed, and of a greyish green.

The flowers are numerous, small, and of a greenish white: they are placed on short footstalks, two, three, or more, on each; and these rise from the bosoms of the leaves.

The berries are red when ripe, and contain a few large, oval seeds, which grow to the rind.

It is common in hedges. It flowers in July, and the berries ripen in August.

C. Bauhine calls it *Bryonia aspera seu alba baccis rubris*. Others, *Bryonia alba*.

It is possessed of great virtues; but is violent in its operations, if not well managed.

It is excellent against obstructions of the viscera, and particularly in uterine disorders: it promotes the menses, and assists in bringing on delivery. It is for this purpose best given in very small doses of the juice expressed with white wine.

The compound water called after its name, and by the vulgar *hysterick water*, has also these virtues, but in a less degree.

The juice, in a somewhat larger dose, has been given with success against dropsies; and a syrup made of it, with honey and a little vinegar, is good in asthma.

It kills worms in the intestines; and in this respect is superior to most medicines. This Bartholin long ago experienced and published; but it has not been enough regarded. For this purpose the best method of giving it, is to press out the juice, and let it stand to subside; then pouring off the clear part, the settlements are to be dried.

A slight infusion of it is useful in hysterick cases, and externally it is a very good addition to cataplasms for hard and painful swellings.

2. White Bryony with black berries.

Bryonia alba baccis nigris.

The root is large, like that of the common kind.

The stalks are numerous, weak, and climbing; and they are very rough to the touch.

The leaves are large, broad, short, and of a dusky green.

The flowers are whitish; and the berries, when ripe, not red, as in the other, but black.

It is not a variety of the former, but a distinct species: the seeds of one will not produce the other.

It is found in hedges in some parts of the kingdom common enough, as about Cambridge. The berries are ripe in August.

C. Bauhine calls it *Bryonia alba baccis nigris*, a name copied by most others.

Its virtues are the same with those of the former.

DIVI-

DIVISION II. FOREIGN SPECIES.

Cretick Bryony.

Bryonia foliis palmatis.

The root is long and slender.

The stalks are numerous, weak, trailing, and, when supported, of a great length.

The leaves are large, and divided in an ele-

gant manner: they are rough, of a pale green, and veined and spotted with white.

The flowers are large, and they are placed on long footstalks. The berries are red.

It is a native of Crete, and flowers in June.

C. Bauhine calls it *Bryonia Cretica maculata*.

G E N U S II.

BLACK BRYONY.

TAMNUS.

There is in this genus a flower, if it may be so called, without petals. The cup is formed of a single piece, divided at the edge into six segments, of an oval form, but pointed, and displayed in an expanded manner at the points. The fruit is a berry, of an oval form, divided within into three cells; in each of which there are two seeds.

There are in this genus male and female plants. The flowers differ in this, that in the male there are within the cup six short filaments or threads, with their buttons; and in the female there is the embryo-fruit, plainly distinguishable under the flower.

Linnaeus places this among the *diœcia hexandria*; the male and female flowers being on separate plants, and the threads in the male six in number. He is displeased with the received name *tamnus*, and writes it *tamus*.

DIVISION I. BRITISH SPECIES.

1. Common Black Bryony.

Tamnus vulgaris. *Pl. 462*

The root is very large, long, and thick, black on the outside, white within, and full of a white juice.

The stalks are numerous, long, slender, and green: they climb among bushes, and by that means grow to ten feet or more in length.

The leaves are large and beautiful: they are placed on long footstalks, and are of a heart-fashioned shape, sharp-pointed, and of a shining deep green.

The flowers are greenish, and are placed several together on long footstalks, each having also its separate pedicle.

The berries are large, and, when ripe, of a beautiful red.

It is common in hedges, and the berries are ripe in August.

C. Bauhine calls it *Bryonia levis seu nigra racemosa*. Others, *Bryonia nigra*, and *Tamnus vulgaris*.

The root is a very powerful remedy in nephritic cases, though not known in the shops, or used in the modern practice. The best method of giving it is in the juice pressed out, when it has been bruised, with white wine.

This works powerfully by urine, brings away gravel, and cleanses the passages in a surprising manner.

It is also excellent against obstructions of the menses, taken in the same way, but in smaller doses, for a continuance of time.

A syrup made of it with honey is serviceable in asthma, and all obstructions of the breast.

The young shoots, eaten in the manner of asparagus, are very pleasant, and work powerfully by urine.

The bruised root, applied externally, has done service in paralytick cases. This I write from experience; nor was it unknown of the plant to the earlier writers; though it has unhappily of later time been disused.

DIVISION II. FOREIGN SPECIES.

Black Bryony with trifid leaves.

Tamnus folio trifido.

The root is long, thick, and full of a sharp juice.

The stalks are numerous and weak; but they support themselves by climbing.

The leaves are large, and of a fresh green:

they are broad, short, and divided into three parts. Their colour is a deep, dead green.

The flowers are small and greenish.

The berries are large and red.

It is a native of the Greek islands, and flowers in July.

Tournefort calls it *Tamnus Cretica trifidifolia*.

G E N U S

G E N U S III.

HERB-CHRISTOPHER.

CHRISTOPHORIANA.

THE flower is composed of four petals; of a singular angulated form, and large. The cup is formed of four chaffy leaves; which are small, obtuse, and hollow; and they fall with the flower. The fruit is a berry, of a roundish shape, with a furrow on it. The seeds are numerous, and semicircular.

Linnæus separates this from all the other berry-bearing plants, and places it among the *polyandria monogynia*; the stamina being numerous, and fixed to the receptacle; and the style from the rudiment of the fruit single.

This author dislikes the received name *christophoriana*, and calls the genus *actæa*.

DIVISION I. BRITISH SPECIES.

Common Herb-Christopher.

Christophoriana vulgaris. *Pl. 605*

The root is long and thick, black on the outside, yellow within, and of a disagreeable taste.

The first leaves are large, and divided by threes into a great many parts; so that they resemble at the first sight those of some of the umbelliferous plants: they are of a dusky green, and of a glossy surface.

The stalk is round, green, upright, branched, and a yard high.

The leaves on this resemble those from the root: they are very large, and their separate parts are broad, serrated, and have also a kind of trifid division.

The flowers are small and white: they stand in clusters upon slender footstalks, forming a kind of spike.

The berries are large, of a roundish, but somewhat oblong figure, and black.

It is found in woods in our northern counties. It flowers in July, and the berries are ripe in August.

Ray calls it *Christophoriana*. Others, *Christophoriana vulgaris*, and *Actæa*. In English we call it *Herb-Christopher*; and, from its poisonous qualities, *Bane-berry*.

The berries have been fatal to children who have been tempted by their glossy black to eat them. They have died convulsed.

DIVISION II. FOREIGN SPECIES.

1. Tall American Herb-Christopher.

Christophoriana Americana procera. *Pl. 604*

The root is long, thick, and of a dark brown.

The stalks are numerous, upright, firm, and of a pale green: they are of a firm substance, and five feet high.

The leaves have the same trifid division with those of the common kind; but they are larger, of a deep green, and sharply serrated.

The flowers stand in very long and beautiful spikes at the tops of the stalks: they are small and white.

The berries are black and roundish.

It is a native of Virginia, and flowers in August.

Dillenius calls it *Christophoriana Americana procera* & *longius spicata*.

2. Red-berried Herb-Christopher.

Christophoriana baccis rubris. *Pl. 605*

The root is long and slender.

The first leaves are numerous, and very large: they are divided by threes into several short, broad segments, and these are serrated and sharp-pointed.

The stalk is single, upright, branched, and four feet high.

The leaves on this resemble those from the root, and are of a very dark green colour.

The flowers stand in long and thick spikes: they are small and white. The berries are red.

It is a native of the northern parts of Europe, and of America, and flowers in August.

The berries are sometimes white.

Morison calls it *Christophoriana Americana rocemosa baccis nigris & rubris*.

G E N U S IV.

SOLOMON'S SEAL.

POLYGONATUM.

THE flower is formed of a single petal; and is oblong, hollow, and of a bell-like shape, and is divided into six segments at the edge. There is no cup. The berry is round, and divided within into three cells, in each of which there is a single roundish seed; and, before the berry is ripe, it is spotted. The leaves are narrow, and of a firm substance.

Linnæus

Linnæus places this among the *hexandria monogynia*; the threads in the flower being six, and the style from the rudiment of the fruit single.

By this arrangement he separates it from most others of the same kind by many classes; and, by an error of the opposite kind, in respect of the lesser division of genera, he joins this in the same with lilly of the valley, taking away the received name *polygonatum*, and calling all the species *convallaria*; the name he uses instead of the old term *lillium convallium*.

The whole habit and general face of the plant distinguish it from the lilly of the valley. The flower also confirms this as a generic distinction; being in the *Solomon's seal* oblong, and in the lilly of the valley globular.

DIVISION I. BRITISH SPECIES.

1. Common Solomon's Seal.

Polygonatum vulgare. *Pl. 606*

The root is thick, and spreads under the surface.

The stalk is single, round, and tolerably upright; but that it generally toward the top stoops a little: it is not at all branched; its height is a foot and half, and the leaves and flowers on it are disposed with great regularity.

The leaves are oblong, broad, of a beautiful green, of a firm substance, and marked with large ribs, all running lengthwise: these generally grow on one side of the stalk, and the flowers on the other.

The flowers are small, whitish, with a tinge of green on the edge; and they have a little smell: they grow two or three together on long, slender footstalks, which rise from the bosoms of the leaves; and they hang down in a continued series.

The berries are large; and, when ripe, they are red; but birds are fond of them, so that they are rarely seen in this state: before that time they are green and spotted.

We have it in some woods in the north of England; but it is not common. It flowers in July.

C. Bauhine calls it *Polygonatum latifolium vulgare*. Others, *Sigillum Solomonis*.

The root is greatly esteemed as an external remedy for bruises.

Internally taken, it is a very powerful refrigerant. It is good against spitting of blood, and has been known to cure that troublesome disorder the *fluor albus*. The best way of taking it is in form of a conserve, beating up the fresh root with sugar.

The colour of the berries varies in this species; sometimes they are only of a bluish green when ripe, and sometimes they are of a deep glossy black.

2. Large-flowered Solomon's Seal.

Polygonatum flore majore. *Pl. 606*

The root is large, and runs obliquely and irregularly under the surface.

The stalk is round, firm, upright, and robust, but not so tall as in the common kind: it rarely exceeds a foot in height, and it does not droop as that of the common kind toward the top.

The leaves are very broad, oblong, thick, of a deep shining green, and marked with very thick and robust veins, running all lengthwise.

The flowers rise from the bosoms of the leaves, and hang all on one side of the stalk: they are larger than in the other, and of a pure white:

two or three hang in a cluster from the bosom of each leaf; but every one of these has its separate footstalk. They have a very fragrant smell, like that of the hawthorn-flower.

The berries are greenish, and spotted for a long time; but, when ripe, they are black.

We have it in some of our woods in the northern counties; but it is scarce. It flowers in June, but the berries are not ripe till about August.

C. Bauhine calls it *Polygonatum latifolium flore majore odore*.

Linnæus supposes it only a variety of the former; but it is altogether distinct.

3. Dwarf Solomon's Seal.

Polygonatum humile angustiore folio

The root is thick, oblong, and white: it runs beneath the surface, and has numerous fibres.

The stalk is upright, of a pale green, not at all branched, and eight inches high.

The leaves are oblong and narrow: they are of a yellowish green, sharp-pointed, and full of thick ribs.

The flowers grow three on each footstalk, hanging from the bosoms of the leaves; and they are small, oblong, and greenish.

The berries, when ripe, are blue.

It is found in mountainous woods in our northern counties. It flowers in July.

Ray calls it *Polygonatum humile Anglium*.

It is a perfectly distinct species from the others, though some have doubted it.

4. Great-leaved Solomon's Seal.

Polygonatum hellebori albi folio

The root is thick and white.

The stalk is firm, upright, not at all branched, and of a deep red.

The leaves stand on one side of the stalk, as in the common kind; and they are very large: they are broad, sharp-pointed, marked with thick ribs, and of a deep green.

The flowers hang on long footstalks from the bosoms of the leaves: they are small and white; and there usually are two on each stalk.

The berries are large; and, when they are ripe, of a beautiful bright red.

It is found in our western counties, and flowers in August.

Ray calls it *Polygonatum hellebori albi folio caulis purpurascens*.

The flowers of this have no smell.

DIVISION II. FOREIGN SPECIES.

1. Branched Solomon's Seal.

Polygonatum ramosum. Pl. 46. 10

The root is composed of a vast number of thick fibres, connected to a small head.

The stalk is round, firm, upright, and branched, and is two feet and a half high.

The leaves are very large, and of a fine deep green: they surround the stalk by a broad base, and grow smaller thence to a point.

The flowers are small and whitish: they hang singly on long, slender, and, as it were, jointed footstalks, rising from the bosoms of the leaves: they are white, with a faint tinct of green.

The berries are at first green and spotted, but afterwards red.

It is frequent in Germany, and flowers in August.

C. Bauhine calls it *Polygonatum latifolium ramosum*.

2. Narrow-leaved Solomon's Seal.

Polygonatum angustifolium. Pl. 46. 9

The root is thick, large, and of an irregular form, and spreads under the surface.

The stalks are round, firm, upright, and a foot and half high: they are rarely branched, but sometimes they divide a little.

The leaves are oblong, narrow, sharp-pointed, and of a pale green: they do not stand in the manner of those in the other kinds, but surround the stalks like the leaves of the stellate plants.

The flowers hang from the bosoms of the leaves on single footstalks, usually one from the bosom of each leaf: they are small and white.

The berries are roundish, and, when ripe, of a fine red.

It is a native of Germany, and flowers in July.

C. Bauhine calls it *Polygonatum angustifolium non ramosum*. He distinguishes another under the name of *Polygonatum angustifolium ramosum*; but it is only a variety of this.

GENUS V.

LILLY OF THE VALLEY.

LILLIUM CONVALLIUM.

THE flower is formed of a single petal; and is hollow and globular. There is no cup. The berry is roundish, divided into three cells within, and before its growing ripe is spotted. The leaves are few, and nervous.

Linnaeus places this among the *hexandria monogynia*; the threads in the flower being six, and the style from the rudiment of the fruit single. He separates it from the rest of the berry-bearing plants by several classes, and joins it in the same genus with the *polygonatum*. He also changes the received name, writing it *convallaria*.

DIVISION I. BRITISH SPECIES.

1. Common Lilly of the Valley.

Lilium convallium vulgare. Pl. 46. 10

The root is long, slender, spreading, and creeping to a great distance under the surface.

The leaves that rise from this are usually two, sometimes three: they are very large, and of a fine green, oblong, broad, and sharp-pointed; and they are of a firm substance, and marked with high and large ribs.

The stalk which bears the flowers rises near the stem, which supports the leaves, and is commonly connected to it by a membranous case. There are no leaves on this stalk.

The flowers grow at the top in a kind of spike; but they all hang one way: they are large, of a whitish colour, and of an extremely fragrant smell.

The berries are large, round, and red.

It is common in our woods, but does not always arrive at perfection. In many places only the leaves are seen, the plants never flowering; and in many others the berries do not ripen.

C. Bauhine calls it *Lilium convallium album*. Others, *Lilium convallium vulgare*.

It is an excellent medicine in nervous cases. The flowers have the principal virtue. They may be taken in infusion; but the best way is in conserve: they are thus good against head-achs, and all nervous complaints.

Dried and powdered, they act as snuff, and do great service in inveterate disorders of the head.

Ray mentions a variety of this plant, which had imposed on some as a distinct species. The leaves in this are narrower, and the flowers smaller; but this is only accidental.

DIVISION II. FOREIGN SPECIES.

Oneblade.

Lilium convallium foliis cordatis. Pl. 46. 11

This is a very singular little plant: it has been described by authors under a distinct name; but it in all respects a true and proper lilly of the valley.

The root is long, slender, divided, and creeping.

The first appearance of the plant is in a single leaf, supported on a long footstalk: this obtained it the name *oneblade*, for when it rises to flower it has two.

The footstalk that supports the first leaf is reddish;

dish; and the leaf stands flatways, not erect, upon it: it is of a heart-like shape, and of a deep, fine green.

The stalk which supports the flowers rises from some other part of the root: it is four inches high, slender, redish, and upright. About the middle it has two leaves, placed at some distance, one over the other: they are heart-shaped, and of the same fine green: they surround the stalk at the base, and terminate in a point.

The flowers terminate the stalk in a thick, short spike: they are small, white, and of a very fragrant smell.

The berries are small, and, when ripe, red.

It is frequent in the mountainous parts of Germany, where the soil is damp. It flowers in June.

C. Bauhine calls it *Lilium convallium minus*. Others, *Monophyllum*.

It has been said to grow wild in some parts of England; but there was some mistake in the account. Species are seldom lost in a kingdom where they ever did grow wild; and it is not found with us now.

The root of this last species has been celebrated against the plague, but I fear upon no good foundation.

GENUS VI.

HERB TRUE LOVE.

HERBA PARIS.

THE flower consists of an uncertain number of petals: they are oblong, and they spread open. The cup is composed of an uncertain number of leaves, and it remains after the flower. The fruit is a berry of a roundish form, but somewhat angulated in four parts, and divided within into four cells; in each of which are two rows of seeds. The stalk is simple, and the leaves grow all from one point.

Linnaeus places this among the *obandria tetragynia*; the threads in the flower being eight, and the styles from the rudiment of the fruit being four, answerable to its four divisions.

This author takes away a part of the received name: he writes it only *Paris*.

DIVISION I. BRITISH SPECIES.

Herb Truelove.

Herba Paris vulgaris. Pl. 46. 12

The root creeps under the surface: it is long, slender, and has numerous fibres.

The stalk is single, upright, not at all branched, and a foot high.

The leaves grow all from one part near the top: they are four. Their colour is a fine deep green, and they are broad and oblong.

The flower is single, one only on each plant: it terminates the stalk, and is composed of four

petals, and is of a greenish white. The cup is of the same colour, and is formed of four leaves.

The berry is large and black. We have it in woods, but not common. Authors call it *Herba Paris*.

The berries are recommended as good in malignant fevers internally, and as cooling in outward applications; but it is not now used.

Our people, who, from its leaves growing in this singular manner, call it *Truelover's knot*, have in some places an opinion of its virtue as a love-powder; but this is idle.

DIVISION II. FOREIGN SPECIES.

Trifoliate Herb Truelove.

Herba Paris trifoliata. Pl. 46. 13

The root is large, thick, and tuberous, and has few fibres.

The stalk is round, upright, firm, not at all branched, and about a foot high.

Toward the middle there stand three leaves: these are broad, short, and sharp-pointed: they are of a firm substance; and their colour is a fine green.

The flower is single, one only growing on each plant: it terminates the stalk, and is very large and beautiful: it consists of three petals, and it stands in a three-leaved cup. The colour is a deep purple, and the cup is green.

The berry is very large and black: the seeds are numerous.

It is a native of North America, and flowers in July.

Cornutus calls it *Solanum triphyllum Canadense*.

No plant shews more perfectly or more plainly than this species of *Herba Paris*, the impropriety of Linnaeus's method of forming the classes on the number of threads in the flower. None can doubt, nor can himself deny, that this is a species of the same genus; yet he is obliged to acknowledge, that the threads, and all the other parts of fructification, are in this one-fourth in number less than in the other. The threads are three, and so of the rest.

The character we have given of the genus, taking in the disposition of the leaves, is perfect: it admits both these species, and it excludes all other plants: but this no generical character can do that is formed upon the threads of the flower. We have shewn the same truth in other instances; but it is in none so striking.

GENUS

G E N U S VII.

MARSH WHORTLE.

OXYCOCCUS.

THE flower is formed of a single petal, which is hollowed like a bell, and is divided at the edge into four segments, which turn backwards. The cup is extremely small, and remains after the flower. The fruit is a berry, of a roundish form, and divided into four cells. The seeds are few and minute.

Linnaeus places this among the *hexandria monogynia*, the threads in the flower being eight, and the style from the rudiment of the fruit single. He joins it with the *vaccinium*; from which it differs in essential characters, as we shall shew when we come to the shrubby kinds.

The *oxycooccus* is a plant of which there is properly but one known species, and that is a native of Britain.

Marsh Whortle Berry.

Oxycooccus vulgaris. *Pl. 46. 14*

The root creeps under the surface; and is long, thick, and redish.

The stalks are numerous and weak: they are very slender, of a purplish colour, not much branched, and four or five inches long: they support themselves at best but irregularly; and, when loaded with fruit, always lie upon the ground.

The leaves are small, and of a bright green:

they are broad at the base, sharp-pointed; and they have no footstalks.

The flowers stand on long, slender pedicles; and are of a faint red.

The berries are longish, and of a deep red when ripe.

It is found on boggy grounds in Warwickshire, and in some other places, and flowers in June.

C. Bauhine calls it *Vitis idea palustris*.

The berries are cooling and subastringent: they will stop bloody stools, and they strengthen the stomach.

G E N U S VIII.

MOSCHATELL.

MOSCHATELLINA.

THE flower is formed of a single petal, and is hollowed, and divided into four or into five segments at the edge. The cup is formed of a single piece, and is split as it were into two parts. The fruit is a round berry, growing between the cup and the flower. The seeds are four, and each is held in a separate cell. The cluster of flowers grows in a kind of square head.

Linnaeus places this among the *hexandria polygynia*; the threads in the flower being eight, and the styles from the fruit numerous.

This author takes away the received name of the plant, and calls it *adoxa*.

We have in this another instance of the uncertainty of taking characters from the number of threads in the flower. We have shewn this in two plants evidently of the same genus in the *Herba Paris*; but here we see it in the flowers of the same plant. The flower, which grows at the top of the cluster, has the number of parts here first named, the segments being four, and also the threads four within; but in all the other flowers on the same stalk the segments are five, and the threads in the same manner five.

Of this, as of the former genus, there is but one known species, and that is a native of Britain.

Tuberous Moschatell.

Moschatellina tuberosa. *Pl. 46. 15*

The root is small, thick, of an irregular figure, and pale brown colour.

The leaves are large, and they are supported on long footstalks: they are divided rudely into three parts; and these are again notched into three at the ends, where they terminate obtusely.

The stalks are about three inches high: they are slender, whitish, and weak.

There usually grows a single leaf on each, and that toward the middle: it is like those from the root, but smaller, and of a paler green.

The flowers stand at the top in a short, thick, square cluster: they are of a greenish colour, with a tinge of whitish and yellowish.

The berries are small and redish.

It is frequent at the sides of woods in the rotten earth that lies under trees. It flowers in April.

C. Bauhine calls it *Ranunculus nemorum moschatellina dictus*.

Its virtues are unknown.

G E N U S

G E N U S IX.

ASPARAGUS.

A S P A R A G U S.

THE flower is formed of a single petal: this is oblong, hollow, and divided to the very base into six narrow segments; three of which stand inward, and turn back at the ends. There is no cup. The fruit is a round berry, with a dent at the top; and it is divided within into three cells, in each of which there are two seeds.

Linnaeus places this among the *hexandria monogynia*; the threads in the flower being six, and the style from the rudiment of the fruit single.

DIVISION I. BRITISH SPECIES.

1. Common Asparagus.

Asparagus vulgaris. *Pl. 46. 16*

The root is composed of a vast number of long, thick, brown fibres.

The stalk is round, upright, of a pale green, and a yard high. The branches are regularly disposed upon it: they begin about the middle, and grow shorter from thence all the way up.

The leaves are very numerous: they are extremely slender, and of a pale green.

The flowers are small, and of a greenish white: they are placed on short footstalks upon the branches.

The berries are large, and of a bright red. It is common wild about our western sea-coasts, and flowers in July.

The young shoots there are thick and delicate; but in gardens culture renders them much larger and more tender.

C. Bauhine calls it *Asparagus*. J. Bauhine, *Asparagus hortenensis* & *pratensis*; and others, *Asparagus vulgaris*.

It is a plant of great virtues. The shoots, as we eat them at table, operate powerfully by urine, but the roots much more. A decoction of them is excellent against the gravel; and they also open obstructions of the viscera.

2. Thick-leaved Asparagus.

Asparagus crassifolius folio.

The root is composed of numerous, thick fibres.

The stalk is round, upright, and a yard high. The branches are regularly disposed, as in the common kind.

The leaves are shorter and thicker; but they have no more breadth than in that.

The flowers are whitish, and the berries are of a bright red.

It is found in our western counties near rivers that have salt-water from tides. It flowers in June.

C. Bauhine calls it *Asparagus maritimus crassifolius folio*.

DIVISION II. FOREIGN SPECIES.

1. Prickly Asparagus.

Asparagus spinosus. *Pl. 46. 17*

The root is composed of numerous, thick fibres.

The stalks are firm, upright, round, glossy, of a pale green, very much branched, and five feet high.

The leaves are numerous, and of a fine deep green; four or five rise together on different parts of the branches; and they all terminate in prickles.

The flowers are small and whitish: they stand on short footstalks, and soon fade.

The berries are large, round, and red.

It is common about hedges in Italy, and flowers in June.

C. Bauhine calls it *Asparagus foliis acutis*. Others, *Asparagus spinosus*, and *Corruda*.

2. Starry-leaved Asparagus.

Asparagus foliis fasciculatis. *Pl. 46. 18*

The root is small and fibrous.

The stalks are numerous, round, jointed, and of a pale green, the joints being paler than the rest.

The leaves are long, narrow, of a deep green, and sharp-pointed: they grow in clusters at the extremities and on the sides of the branches, like the rays of a star.

The flowers are small and greenish.

The berries are large and red.

It is a native of Africa, and flowers in July.

Plukenet calls it *Asparagus Africanus tenuifolius viminalibus virgis foliis loricis adinstar ex uno puncto stellatim dispositis*.

The virtues of these several kinds are said to be the same with those of the common asparagus, but in an inferior degree.

No 32.

40

G E N U S

G E N U S X.

NIGHTSHADE.

SOLANUM.

THE flower is formed of a single petal, deeply divided into five segments. The cup is made of a single piece, and in the same manner divided into five segments. The fruit is a roundish berry. The seeds are numerous, and are contained in two cells.

Linnaeus places this among the *pentandria monogynia*; the threads in the flower being five, and the style from the rudiment of the fruit single.

DIVISION I. BRITISH SPECIES.

1. Woody Nightshade.

Solanum lignosum. *Hay. 1*

The root is composed of numerous, thick fibres.

The stalks are woody, but weak: they are covered with a brown bark toward the bottom; but it is paler in the tenderer parts.

The leaves are placed on long footstalks; and they are broad, oblong, and pointed. Those toward the lower part of the plant are undivided; but those toward the top have one or two notches, making a kind of ears near the base.

The flowers are placed in clusters upon slender footstalks: they are small, and of a dark purple, with yellow heads of the threads in the middle.

The berries are large, oblong, and, when ripe, of a very fine red.

It is common in damp grounds, and flowers in July.

C. Bauhine calls it *Solanum scandens seu dulcamara*. Others, *Solanum lignosum*.

2. Sea Woody Nightshade.

Dulcamara maritima.

The root is composed of a multitude of large fibres.

The stalks are numerous, woody, and covered with a grey bark; and the young twigs are of a deep green.

The leaves are oblong, and irregularly dented with a few deep notches: they are of a bluish green.

The flowers are few and large: they stand in spreading tufts, and are of a paler blue than in the common kind, but of the same form.

The berries are oblong, and, when ripe, black.

DIVISION II. FOREIGN SPECIES.

1. Common Tree Nightshade.

Solanum fruticosum angustifolium. *Hay. 3*

The root is composed of numerous fibres.

The stem is firm, woody, and covered with a brown bark: the plant is a yard or more in height, and spreads into branches in a regular and elegant manner.

The leaves are long, slender, and of a beautiful green.

We have it about the sea-coasts in the north. It flowers in July.

Ray calls it *Solanum lignosum, seu dulcamara marina*.

The *woody nightshade*, though of the *solanum* kind, has no dangerous qualities. It operates gently by stool, and opens obstructions of the viscera. The woody part of the stem has most virtue. A decoction of this is good in the jaundice.

9. Common Wild Nightshade.

Solanum vulgare. *Hay. 2*

The root is composed of numerous fibres.

The stalk is round, green, thick, and of a firm substance: it spreads out into numerous branches, and is two feet high.

The leaves are placed on long footstalks: they are oblong, broad, sharp-pointed, and of a deep green.

The flowers are small and white: they stand in clusters eight or ten together, and have yellow buttons in the middle.

The berries are round, and, when they are ripe, black.

It is common in cultivated ground, and no where so much as in the borders of gardens. It flowers in August.

C. Bauhine calls it *Solanum bacciferum primum seu officinarum*. Others, *Solanum vulgare*; and, from its growing in gardens, *Solanum bortenense*.

The leaves of this kind are used externally as cooling and repellent; but, if not managed with caution, they may be dangerous.

2. Love-Apple.

Solanum foliis pinnatis fructu magno. *Hay. 4*

The root is composed of many thick fibres.

The stalk is thick, fleshy, and of a pale green, but of a weak substance; so that it does not stand perfectly upright.

The leaves are very large, and of a pale green: they are of the pinnated form; each composed of three or four pairs of pinnæ, with an odd segment at the end: these separate parts are deeply and rudely indented, and sometimes divided again in the pinnated manner.

The flowers are large and yellow: the fruit is very large, of the bigness of a moderate apple, ribbed on the surface, and of a fine red. It is full of a soft pulpy substance; among which lie numerous seeds.

It is a native of the warmer parts of America, but thrives well in our gardens. We raise it principally for beauty; but in many other parts of Europe they eat the fruit in soups; and sometimes raw, with oil, pepper, and vinegar.

It is innocent; but there is little nourishment in it.

3. Potatoe.

Solanum tuberosa radice. *Hay. 5*

The root is composed of numerous, large, irregular pieces, and of certain strings or fibres connecting them together.

The stalk is round, firm, upright, and a yard high.

The leaves are large, long, and pinnated: each is composed of four or five pairs of irregular pinnæ, with an odd one at the end; and they are of a dusky green colour.

The flowers are large, and of a deep purple, paler on the outside, and duskier within, with yellow buttons in the centre: these stand in clusters at the ends of the branches; and have a singular aspect, being five-cornered, rather than divided as the others.

The fruit is large, round, and, when ripe, black.

It is a native of America, and flowers in August.

The roots are very quick in multiplying.

C. Bauhine calls it *Solanum tuberosum esculentum*. Others, *Battata*.

This is another instance, that many plants of the *solanum* kind are not poisonous, for it is truly and distinctly one of them.

4. Mad Apple.

Solanum pomiferum fructu oblongo. *Hay. 6*

The root is composed of numerous, long, thick, and spreading fibres.

The stalk is round, upright, firm, of a pale green, or of a purplish colour, and covered with a light, loose, woolly matter: it is not much branched; and it is a foot and half high.

The leaves are very large: they have short footstalks; and those are often redish, as are also the veins: the leaves themselves are of a deep green; but they have the same kind of whitish, woolly matter upon them as the stalks.

The flowers stand singly, or sometimes two or three together, on long footstalks; and they are large, and either white, or of a beautiful purple. Their cups are covered with sharp, but weak prickles, of a purple colour.

The fruit is very large: its shape is oval, and its bigness that of a hen's egg, or larger: it is greenish at first, but white like an egg when ripe; or sometimes purplish, varying as the flower: it is full of a soft, juicy matter within; and the skin is extremely tender and thin.

This is another of the innocent plants of the *nightshade* kind. Its name would make one think otherwise; but that has been given through ignorance.

Some early blunderers in the science supposed this to be the male mandrake of Theophrastus, and therefore declared it to be poisonous; setting down the symptoms of convulsions and deliriums as attending the taking it inwardly. The people in the East, not so deeply learned in Greek, eat it, and they have set the example to other nations. It is now a common ingredient in soups in many places.

It is a native of Asia, Africa, and South America. Scarce any warm climate is without it.

C. Bauhine calls it *Solanum pomiferum fructu oblongo*. Others, *Meelongo*, and *Melanzana*. Our English people, who follow the old botanists, *Mad apples*, and *Raging apples*. Others, the *Egg-plant*.

Tournefort has led the way to describing the several varieties of this plant as distinct species; but they are no way different, except in the colour of the flower and fruit: no more than a red bean from a white one.

5. Pear-fruited Nightshade.

Solanum spinosum fructu pyriformi. *Hay. 7*

The root is composed of many thick, long, and spreading fibres.

The stalks are numerous, weak, branched, and two feet and a half high: they are covered with a loose, whitish, woolly matter; and are beset at small distances with sharp prickles.

The leaves are large, and covered with the same white downy matter: they are also beset with sharp prickles: they are broad, short, pointed at the ends, and irregularly indented.

The flower is small; but the fruit is very large: it is of the bigness of a pear, and of a gold yellow: its shape also is like that of a pear; but it grows to the stalk at the large end.

It is common in the American islands, and the fruit ripens in August.

Plukenet calls it *Solanum Barbadesse spinosum annum fructu aureo rotundiore pyri parvi inversi forma & magnitudine*.

6. Blue-flowered Thorny Nightshade.

Solanum spinosum flore ceruleo. *Hay. 8*

This is a very singular and elegant plant.

The root is composed of numerous, spreading fibres.

The stalks are round, firm, upright, branched, and a yard high: they are of a pale colour, and thick set with sharp, dusky thorns.

The

2. Love-Apple.

The leaves stand on thorny and long footstalks: they are large, and deeply sinuated at the edges; and have also numerous sharp thorns on their ribs.

The colour is a deep green.

The flowers are numerous: they stand at the tops of the stalks on slender pedicles, and are deeply divided into segments, and of a fine blue.

The fruit is round, and, when ripe, black.

It is a native of America, and flowers in July.

Plukenet calls it *Solanum annuum nigricans Virginianum spinosissimum flore ceruleo*.

7. Prickly Nightshade with smooth cups.

Solanum spinosum calycibus levibus. N. 7. 9

The root is composed of numerous, spreading fibres.

The stalk is firm, upright, prickly, and not much branched: the thorns are stiff, and very sharp; and they stand straight.

The leaves are long, and considerably broad: they have short footstalks, they are deeply sinuated at the edges, and they have some prickles on them.

The flowers stand on long, slender, prickly footstalks; and they are large and blue.

The berries are round, black, and glossy.

It is a native of the warmer parts of America and Asia, and flowers in July.

Dillenius calls it *Solanum Indicum spinosum flore boraginis*.

8. Apple of Sodom. N. 7. 10

Solanum spinis recurvis flore ceruleo.

The root is long, thick, and furnished with many fibres.

The stalks are numerous, upright, branched, of a pale yellowish brown colour, and woody substance, and four feet high: they are armed with short and robust prickles, which bend somewhat downwards.

The leaves are long, and considerably broad: they have very short footstalks; and they are deeply divided at the edges in the pinnated form: they are of a dark green; and they have also prickles on them.

The flowers stand on long footstalks, sometimes singly, sometimes many together: they are large, and of a sky-blue. The fruit is large, round, and black.

It is a native of many parts of the East, and flowers in July.

Plukenet calls it *Solanum pomiferum frutescens officinarum spinosum nigricans boraginis flore foliis profunde laciniatis*. It is called *apples of Sodom* from the place.

The fruit has a tempting aspect; but, when chewed, the taste is very disagreeable.

9. Bahama Nightshade.

Solanum angustifolium spinosum. N. 7. 11

The root is composed of numerous, thick fibres.

The stalk is woody, firm, upright, not much branched, and five or six feet high: it is armed with thorns; but they are short, and not very numerous.

The leaves are numerous, long, narrow, of a beautiful green, and fixed on short footstalks: they are very lightly waved on the edges, and they have prickles along the middle rib.

The flowers are large and beautiful: they are of a fine pale blue, with a tinge of purple; and have yellow buttons in the centre.

The berries are small, round, and black.

It is a native of the Bahama islands, and flowers in August.

Dillenius calls it *Solanum Bahamense spinosum petalis angustis reflexis*. The flower is sometimes white or flesh-coloured.

The qualities of these foreign *nightshades* are not perfectly known; but, upon the whole, this genus has a much worse character than it deserves. *Nightshade* in general is accounted poisonous; but, as we have shown with respect to most of the species, there is little reason for such a character. The opinion seems to have arisen from confounding the plant next to be described under the same name.

That is indeed poisonous; and having, by a latitude of speech, been called *nightshade*, all the rest have been supposed of the same qualities.

GENUS XI.

DEADLY NIGHTSHADE.

BELLADONA.

THE flower is formed of a single petal, and is deep, hollowed, and very lightly divided into five segments at the edge. The cup is made of a single piece, divided into five equal segments; and it remains when the flower is fallen. The fruit is a round berry, placed in the cup. The seeds are kidney-shaped.

Linnaeus places it among the *pentandria monogynia*; the threads in the flower being five, and the style from the rudiment of the fruit single. He takes the received name from the plant, and calls it *atropa*.

DIVISION I. BRITISH SPECIES.

Deadly Nightshade.

Belladonna dicta solanum L. N. 7. 12

The root is long, large, and creeping.

The stalks are numerous, firm, upright, and

branched: their colour is brown toward the bottom, and higher up a pale green.

The leaves are numerous, very large, and of a fine strong green: they are long and broad, pointed at the ends, but not indented at the edges.

The

The flowers stand on single footstalks rising from the bosoms of the leaves; and they are large and conspicuous: they are hollow, and of a deep, but not shining purple colour.

The berry is large, round, and black: it has a tempting look, and many have been by that led to eat of it to their destruction.

It grows in the neighbourhood of towns and houses, on ground where there has fallen manure; but it should be rooted out wherever found, for children have been often destroyed by it. It flowers in July.

C. Bauhine calls it *Solanum melanocerasus*. Others, *Solanum Letale*, and *Belladonna*.

The works of medical authors abound with instances of its effects, and histories of those who have perished by it; and experience from time to time shews they have told truth.

I saw one unhappy instance in the year 1743: a labourer found it in the park of a nobleman where he was repairing the pales; and he eat heartily of the berries, and gave some to his children. The symptoms came on in the following manner.

The man, after two hours, grew light-headed, giddy, and unable to stand; but not thinking of the cause, set down to his supper. He drank greedily, but could scarce swallow any thing solid. He went to bed, and presently grew worse. He complained of a dreadful pain in the breast, and difficulty of breathing. It was about five in the afternoon he eat the berries. These symptoms came on between ten and eleven at night; and at

twelve, seven hours from the eating them, he fell into the most dreadful ravings. Once in a quarter of an hour his senses would return for a moment; but he relapsed immediately, and every time with more violence. During the intervals of reason, his breath was as difficult; and he complained of a dreadful tightness across his breast. Toward morning the ravings went off, but he became foolish. He was faint, breathed with difficulty, and stared and flabbered, answered foreign to questions, and seemed one born an idiot. All this time he was affected with a most painful and violent strangury; but by degrees this went off, and he recovered without the help of medicines. Before the country-apothecary could be had, he was growing better; and he not knowing what to advise, left the family to their own management.

The children both died in the course of the night; and he, when perfectly recovered, and questioned about the nature of the case, answered, that he had been in the condition of one very drunk; but saw and understood all that was done even when he answered in the wildest manner.

This I have seen; and what is recorded by medical writers agrees well with it. Indeed no class of writers are in general more faithful. We read of men who have continued in a state of madness eight or nine days from it, and have recovered: to children it has generally proved fatal. Those grown persons who have perished by it, have generally died within twelve hours from the eating.

DIVISION II. FOREIGN SPECIES.

Large violet-flowered Deadly Nightshade.

Belladonna flore magno violaceo.

The root is composed of numerous, thick fibres.

The stalk is round, firm, upright, and of a brownish colour, not much branched, but full of leaves: these are oblong, and of a deep green, not dentated at the edges, but sharp-pointed: they have short footstalks, and a rim of the leaf runs down them.

The flowers are large, and of a fine violet-colour: they are placed singly on short footstalks rising from the bosoms of the leaves.

The fruit is a large berry, placed in the cup; which is also large, and in a manner closes over it.

It is a native of Peru, and flowers in August.

Justieu calls it *Alhakengi flore amplo violaceo*; but it is truly of this kind.

GENUS XII.

CUCKOWPINT.

ARUM.

THERE is not in all the round of Nature a genus so singular as this, nor any about which system-makers have had more trouble, none knowing where to place it: yet had they followed the obvious character impressed by Nature in the fruit, the confusion had been avoided; for whatever disputes may have arisen from the singularity of the flower, the fruit is a berry: that admits no doubt, and that places it in this class.

The flower has no petals, but numerous threads. The cup is formed of a single leaf; and is large, hollow, upright, pointed at the top, and coloured within: it falls with the flower. The fruit is a cluster of round berries. The seeds are numerous and roundish. The leaves are undivided.

This is a character of the genus comprised in a few words; yet punctual, particular, and above exception. It plainly distinguishes the *arum* from all other plants, even from two genera nearly allied to it, and to be described hereafter, *arifarum* and *dragons*.

Linnaeus separates it from the generality of the other berry-bearing plants, placing it among the *gynandria polyandria*; the stamina being numerous, and fixed to the pistil of the flower. He joins the *arifarum* and *dracontium* with it.

Nº XXXIII.

4 P

DIVI:

DIVISION I. BRITISH SPECIES.

Common Cuckowpint.

Arum vulgare. *Pl. 7. 12*

The root is a roundish, tuberous lump, brown on the outside, and white within, placed at a considerable depth under the surface, and furnished with a few fibres.

The leaves are placed on long, thick footstalks; and they are very large, and of an arrow-headed shape, split deep at the base, and sharp at the point: they are of a fine fresh green, and are often spotted with black, and sometimes with white spots.

The stalk rises in the midst of these, and is surrounded by the hollow bases of their footstalks: it is round, thick, and ten inches high: on its top stands a single flower. The thready part at the bottom is yellowish: the receptacle, which is lengthened out in form of a club, is red, purple, or white; for these are accidental varieties. The berries are of a fine bright red.

It is common under hedges, and flowers in May. C. Bauhine and others call it *Arum vulgare*, and *Arum maculatum*.

Some have described the spotted kind as a distinct species; but the variety is altogether accidental.

It is a very powerful and excellent medicine. It operates by urine, and is good against the gravel.

A piece of it bruised and laid upon the tongue, has restored the speech in paralytick cases; and a conserve of it, made with two-thirds sugar, has done eminent service in the scurvy, and in rheumatisms.

The virtues of it are less known than they should be, from this single circumstance, that it is commonly used dry. It loses all its efficacy with its juice; and this the taste manifests. Nothing is more acrid than the fresh root; but when dry it is insipid.

DIVISION II. FOREIGN SPECIES.

1. Egyptian Arum.

Arum Egyptianum. *Pl. 7. 14*

The root is very large, tuberous, and of an irregular form; of a reddish brown on the outside, white within, and of an acrid taste, but not so violently sharp as our *arum*.

The leaves grow singly on long, thick footstalks: they are very large, of a deep shining green, and of a shape somewhat approaching to heart-fashioned: they are broad at the base, and are there very lightly and bluntly indented: they are from this part gradually smaller to the end, where they terminate obtusely; and the stalk is not inserted at the edge, but in the substance of the leaf, a third below the top.

The stalk which supports the flower is round, thick, juicy, and of a pale green.

The flower resembles that of our common *arum*. The cup is a great, oblong, hollow case: the club within is white, and of an uneven surface; and the thready part is yellow.

The berries are large and red.

It is a native of Egypt, and of the Greek islands. It rarely flowers.

C. Bauhine calls it *Arum maximum Egyptianum* quod vulgo *Colacasia*. Others, *Arum Egyptianum*, and *Colacasia*.

The root is eaten in Egypt, and other parts of the East, as food; and it is not confined in this use to the place where it naturally grows, but sold

into other countries. The sharpness of its taste goes off by soaking in water, or by drying: either way serves to prepare it for the table. What Bontius writes of its being poisonous, has no other meaning than that it is acrid. Three days soaking in water, he says, takes off all its ill qualities; and this, or a much shorter time, is found perfectly well to prepare it for food pleasantly and wholesomely.

2. Arrow-leaved Arum.

Arum foliis angustis sagittatis. *Pl. 7. 15*

The root is brown, large, tuberous, and furnished with a few thick fibres.

The leaves are numerous; and they are placed on long, slender footstalks: they are of a perfect arrow-headed shape, oblong, slender, sharp-pointed, split at the base, and with sharp points also to the beards.

The flower rises upon a slender green stalk, and is contained in a hollow case or cup: this is green on the outside, yellowish within, and highly ribbed.

The club is usually yellow, sometimes white or purple.

The berries are red.

It is common in the American islands, and flowers in April.

Plukenet calls it *Arum minus sagittarie foliis*.

GENUS XIII.

BUTCHERS BROOM.

Ruscus.

THE flower has no petals. The cup is composed of six small leaves, of an oval form, convex, and turned at one edge: three of these stand inward, and have by some been mistaken for petals of a flower. The fruit is a round berry, divided within into three cells, in each of which are two seeds;

feeds. There are in this genus separate male and female flowers on distinct plants: but they differ only in this, that the male flowers have certain buttons, though without threads, and the female an oblong rudiment of the fruit.

Linnaeus places this among the *diœcia syngenesia*; the flowers being male and female on separate plants, and the buttons growing together in a body: but he is obliged to acknowledge, that there are in some species, which he cannot dispute to be of this genus, flowers which have the male and female parts together. This shews the generical distinction he has established to be imperfect, and the classical character false; but these things we have often observed.

Common Butchers Broom.

Ruscus vulgaris. *Pl. 7. 16*

This is a tough and shrubby plant, though of no considerable height or bigness.

The root is long, thick, and spreading.

The stalk is round, firm, upright, a foot and half high, and divided into many branches toward the top.

The leaves are very numerous and small: they are of a bluish green colour, and of a firm substance: they are broadest at the base, narrower to the point, where they end in a sharp prickle, and not at all serrated.

The flowers are small, and of a greenish white:

they stand upon the leaves, one on each, and usually near the centre.

The berry is large, and of a beautiful red.

We have it on waste grounds. It flowers early in spring.

C. Bauhine calls it *Ruscus*. Others, *Ruscus fruticosus*. We, *Knee-bolly*, and *Butchers broom*.

The root is a powerful and excellent diuretick: the best way of giving it is in decoction. It thus is serviceable in the gravel, and all nephritick complaints, and against obstructions of the viscera. Cures of dropsies have been performed by this medicine alone; but it must be taken early, otherwise there is little hope.

GENUS XIV.

DWARF HONEYSUCKLE.

Chamaepericlymenum.

THE flower is composed of four petals, of an oblong form. The cup is small, and is divided into four segments at the edge. The fruit is a large berry, of an uneven surface, composed of several smaller round ones.

Linnaeus places this among the *tetrandria monogynia*, joining it with the *cornus*, but improperly.

There is but one known species of this genus, and that is common to Britain, and the other northern parts of Europe.

Dwarf Honeysuckle.

Chamaepericlymenum. *Pl. 7. 17*

The root is long, slender, and spreading: it runs under the surface, and is furnished with many fibres.

The stalk is round, slender, upright, and about five inches high.

The leaves are placed in pairs: they are large, oblong, broad, pointed at the ends, not at all divided at the edges, and marked with high ribs: they have no footstalks, and their colour is a bluish green.

The flower stands at the top of the stalk; but there usually rise two little shoots from the same

point; each of which has two or four leaves on it like the others.

The flower is large and white.

The fruit is composed of several little berries joined together, and is of a fine red.

The whole plant, as it decays, often becomes redish.

We have it on hills in the northern parts of the kingdom. It flowers in May.

C. Bauhine calls it *Periclymenum tertium five humile*. Others, *Chamaepericlymenum*. It obtained this name, the English of which is *Dwarf honeysuckle*, from those who saw the fruit, and not the flower.

GENUS XV.

CLOUD BERRY.

Chamaemorus.

THE flower is composed of five large, obtuse petals; and is single on each plant, terminating the stalk. The cup is divided into five segments, and remains after the flower. The fruit is a large berry, composed of many smaller, placed upon a convex head.

Linnaeus places this among the *icosaandria polygynia*; the threads being numerous, and growing to the cup; and the styles being also numerous, one rising from the rudiment of every succeeding grain of the fruit. This author joins it with the *common bramble*; from which it differs in the flower, being single on the top of every plant, and in other obvious circumstances.

1. The

1. The Cloud Berry.

Chamemorus. Pl. Ray. 10

The root is long, slender, and creeping: it runs under the surface, and has numerous fibres.

The stalk is round, weak, and about ten inches high.

The leaves are large, and deeply divided: they stand alternately, and there are not more than four or five on the whole plant: they are placed on long footstalks, and usually hang drooping: they are broad, short, deeply divided into several sharp segments, and those again sub-divided, or deeply serrated. Their colour is a blackish green on the upper surface, and whitish underneath.

The flower stands at the top of the stalk, and is large and purple.

The fruit, when ripe, is red; and it is of the bigness of a raspberry, which it greatly resembles in its external shape.

We have it on the northern mountains. It flowers in June.

C. Bauhine calls it *Chamerubus foliis ribes Anglicus*. Others, *Chamemorus*, and *Vaccinium nubilus*. Our common people, *Cloud-berries*, and *Knot-berries*.

2. Wild Raspberry.

Chamemorus fructu parvo. Pl. Ray. 10

The root is slender and creeping.

The stalk is weak, round, whitish, and a foot high.

The leaves are placed on long footstalks, three on each; and they are oblong, broad, serrated, and sharp-pointed. Their colour is a dusky green on the upper side, and they are paler underneath.

The flowers grow two or three together on slender footstalks at the top of the plant: they are large, and of a pale red, mixed with white.

The fruit is small, but that is owing to the few grains of which it is composed, for they are singly as large as in the other: there are about three to each fruit; and they are red.

It is common on the northern mountains of England, and flowers in June.

C. Bauhine calls it *Chamerubus saxatilis*. Others, *Rubus Alpinus humilis*, *Rubus saxatilis*, and *Rubus Alpinus tricecus*.

The fruit of this is esteemed excellent against scorbutick complaints. It may be eaten fresh, or made into a kind of conserve. The people, where it is common, relate wonders of the cures it has performed in the worst cases.

S E R I E S II.

FOREIGN GENERA.

Those of which there is no species native of this country.

G E N U S I.

PRICKLY BINDWEED.

Smilax L. A. X.

THE flower has no petals. The cup is composed of six leaves; which are oblong, and have the points turned back, and unite so as to form a kind of wide, open bell. The fruit is a round berry, divided within into three cells, in each of which there are two seeds. There are male and female flowers on separate plants in this genus; but they are of the same structure, except that the male flower has six short threads with their buttons, and the female has an oval rudiment of the fruit, on which are three styles.

Linnaeus places it for this reason among the *diandra hexandria*, separating it by many intermediate classes from the generality of the other berrybearers.

1. Red-berried Smilax, with angulated stalks.

Smilax laevis baccis rubris caule angulato. Pl. Ray. 10

The root is long, slender, and furnished with numerous fibres.

The stalks are weak, and brown: they support themselves by means of tendrils, and by that means run to a vast length; and they are prickly.

The leaves are large and heart-fashioned: they

have slender footstalks, and they are of a beautiful green. Both the footstalks and the substance of the leaves are prickly.

The flowers are small and whitish: they stand in great numbers on the tops of the stalks.

The berries are small, but of a beautiful red. It is a native of Italy, Sicily, and many other of the warmer parts of Europe, and flowers in August.

C. Bauhine calls it *Smilax asper fructu rubente*. Others

Others, *Smilax aspera*. The berries are sometimes black, and the plant is in other places found with fewer prickles. In these conditions it has been described as two distinct species; but the difference is only accidental.

2. The Sarfaparilla Plant.

Smilax aspera foliis ovatis. Pl. Ray. 10

The root is extremely long and slender: it spreads to a vast extent, and is brown on the outside, and white within.

The stalks are numerous, weak, and slender: they support themselves by tendrils, and run to the height of twelve feet.

They are brown, and set with prickles.

The leaves have no prickles: they have slender footstalks; and they are of an oval figure, but sharp at the point: they are of a firm substance; and their colour is a deep green on the upper side, and pale underneath.

The flowers grow in clusters at the tops of the stalks; and are small, and of a yellowish white.

The berries are as large as a black cherry, and when ripe they are of the same colour.

It is a native of South America, and of some parts of the north. It flowers in July.

C. Bauhine calls it *Smilax aspera Peruviana sive Sarfaparilla*. Others, *Sarsa*, *Zarza*, and *Zarza mobilissima*.

Its root is a very celebrated remedy in the scurvy. It has been greatly recommended in the cure of the venereal diseases: but the ready effects of mercury have superseded all other medicines for that purpose.

It operates by sweat; and the best method of

taking it is in a strong decoction. This should be continued for a considerable time.

3. The China Plant.

Smilax foliis obverse cordatis floribus umbellatis.

The root is large, and of an irregular form.

The stalk is round, jointed, weak, and usually crooked from joint to joint, and armed here and there with a few prickles: it supports itself among bushes, climbing by means of tendrils, and in that manner runs to a great height.

The leaves are large, and of a figure very much approaching to round: they are smallest at the base, and are a little dented in the heart-like manner at the end.

The flowers are small and yellow: they stand in a kind of little umbells, about four in each.

The berries are large; and, when ripe, they are of an orange red.

It is a native of China and Japan. It flowers in July.

Plukenet calls it *Fruticulus convolvulaceus spinosus sinicus floribus parvis umbellatis*. Others simply, *China*.

The root possesses the same qualities with *sarfaparilla*. They used to be given together against the venereal disease, and at present are prescribed in diet-drinks against scorbutick complaints. It was supposed to possess virtues that it had not; and thence is grown much into disuse, the common practice neglecting those it really has.

There is a root brought from America called *bastard China*, which belongs to a plant of this kind, but with longer leaves.

G E N U S II.

BERRYBEARING ANGELICA.

Aralia L. A.

THE flower is composed of five petals, of an oval form. The cup is very small, and is divided by five indentings at the edge. The fruit is a round berry, striated, and crowned at the top, containing a single oblong, hard seed. The flowers are disposed in little umbells; and the leaves are divided in the manner of the common umbelliferous plants.

Linnaeus places this among the *pentandria pentagynia*; the threads in the flower being five, and the styles in its centre the same number.

Berrybearing Angelica.

Aralia racemosa & ramosa. Pl. Ray. 10

The root is long, thick, and furnished with many fibres.

The stalk is round, upright, very much branched, and five feet high: it is purple toward the bottom, and at the joints; elsewhere of a pale green.

The leaves are very large, and each is composed of numerous, smaller, perfect parts, resembling many distinct leaves: these are oblong

and broad; largest at the base, smaller to the point, serrated at the edges, and of a pale green.

The flowers stand in little clusters on footstalks rising from the bosoms of all the leaves from the top to the bottom of the plant: they are small, and of a yellowish white.

The berries are green at first, but when ripe of a dusky red.

It is a native of North America, and flowers in August.

Van Royen calls it *Aralia ex alis florifera*. Others, *Panaces Carpimon*.

G E N U S III.

MANDRAKE.

MANDRAGORA.

THE flower is formed of a single petal; which is hollow, and divided deeply into five segments. The cup is large, formed of a single leaf, of a hollow shape, marked with five ridges, and divided also into five segments at the edge. The fruit is a berry, but a very large one, of a round or longish form; and the seeds are numerous, and kidney-shaped.

Linnaeus places this among the *pentandria monogynia*; the threads being five, and the style from the rudiment of the fruit single. There is but one known species of this singular genus.

The Mandrake.

Mandragora officinarum.

The root is large, long, and thick; and usually from about the middle downwards is divided into two parts. This however is not its constant or certain form: sometimes it is divided into three or four parts, and sometimes it is absolutely single.

The leaves are numerous, and very large: they are long, and considerably broad, small at the base, widest toward the middle, and thence gradually narrower to an obtuse point: they are often waved, and sometimes indented at the edges. Their colour is a dark, dusky green; and they have a very unpleasant smell.

The stalks which support the flowers rise among these leaves; and they are very slender, about four inches high, and of a pale green: each supports a single flower. This is large, hollow, and of a whitish colour, with a blush of purple.

The fruit is of the bigness of a small apple, and is of a spongy substance. Its colour is a greenish yellow when unripe; but as it ripens all the green goes off, and it becomes perfectly yellow.

It is a native of Spain and Italy, and of the other warmer parts of the world, growing in damp woods. It flowers in June.

C. Bauhine calls it *Mandragora fructu rotundo*. Others, *Mandragoras mas*.

No plant has been a source of more error or imposition than this.

The fruit is sometimes of an oblong shape, instead of round; and in that condition the plant is called the *female mandrake*; but it is only an accidental variety.

It is pretended that the root perfectly represents the human body; and cheats have carved a head

and arms to it. Good sculpture has in some authors also greatly helped this resemblance; but in nature it is really nothing.

The fruit of the *mandrake* has been accounted poisonous; but without any just reason. It may be eaten with safety in the manner of the large fruits of some of the *solanums*; but it is unpleasant.

The leaves are cooling, and are used in ointments for that purpose. The outer bark of the root is dried for the service of medicine, but is at present little regarded: it has the character of a narcotick; but it has no very powerful effects.

Those people who shew the root of *mandrake* seldom get that of the right plant. Their custom is, to cut a piece of white bryony into the intended shape, and put it into the ground again for some time, where it will often get a kind of coat.

The interpreters of the Bible have been censured for rendering the Hebrew *dudaim*, *mandrake*; and much learned ignorance has been sent into the world upon the subject. But there seems no reason for farther conjecture than the plain sense of the words; nor any error in the Septuagint, though the mistakes of commentators have fancied so. They have been led to guess other fruits must have been meant, because they thought that of the *mandrake* poisonous. But that is a palpable error: many have eaten the fruits, and any one may without hurt. This plant therefore is innocent: it grows abundantly in that part of the world where the scene of the scripture-story lies; and its virtue was supposed to be that of cleansing the uterus, and assisting conception. This might naturally lead the female Israelite to eat it; and the whole account is plain, familiar, and evidently a literal truth.

G E N U S IV.

MAY-APPLE.

PODOPHYLLUM.

THE flower is composed of nine petals; which are of a roundish form, hollow, and folded at the edge. The cup is a kind of leafy scabbard, falling with the flower: it is composed of three large, hollow leaves, of an oval form. The fruit is a berry, of an oval shape, with a crown at its top. The seeds are numerous and roundish.

Linnaeus places this among the *polyandria monogynia*; the threads being numerous, and fixed to the receptacle, and the style from the rudiment of the fruit single. The name is by most written *anapodophyllum*.

Common

Common May-apple.

Podophyllum vulgare. *Plum. 6*

The root is long, slender, and creeping: it runs just under the surface, and has numerous fibres annexed to it.

The stalk is round, upright, firm, of a yellowish colour, and about a foot high.

It is naked to the top; where it divides usually into two parts, and on each of these is supported a single leaf.

This is very large, of a roundish form, but divided down to the stalk into about six segments.

The colour is a yellowish green, and the substance firm.

The flower rises in the midst between these two parts of the stalk; and has a slender pedicle of an inch long.

It is large and white.

The fruit is oblong, large, and of an orange-colour when ripe.

It is a native of North America, and flowers in May.

Authors in general call it *Anapodophyllum Canadense*.

G E N U S V.

WINTER-CHERRY.

ALKEKENGI.

THE flower is formed of a single petal; which is hollowed, large, folded, and divided at the edge into five broad, pointed segments. The cup is formed of a single leaf; and is of a bloated shape, and divided also toward the edge into five pointed segments: it is of a pentangular form, and remains with the fruit. The berry is roundish, and is contained in the cup, which becomes very large, closes about it, and acquires a colour. The seeds are numerous, kidney-shaped, and compressed.

Linnaeus places this among the *pentandria monogynia*; the threads in the flower being five, and the style from the rudiment of the fruit single. He calls the genus *physalis*.

1. Common Winter-Cherry.

Alkekengi vulgare. *Plum. 7*

The root is slender, and creeps under the surface.

The stalk is round, upright, a foot and half high, and divided into several branches.

The leaves are placed two at a joint, on long footstalks; and they are large, and of a fine deep green: they are broadest at the base, narrower to the point, and undivided at the edges.

The flowers are placed on slender footstalks in the bosoms of the leaves: they are large and white.

The fruit succeeds; and makes a singular appearance: it is a red berry of the bigness of a cherry, and is surrounded by a kind of bag or bladder formed of the cup; which swells for that purpose, and acquires a red colour.

It is a native of the warmer parts of Europe, and flowers in June.

C. Bauhine calls it *Solanum vescarium*. Others, *Alkekengi*.

The berries are celebrated for many virtues; but the present practice neglects them: they operate by urine, and are good against obstructions of the viscera; but as we have so many more powerful medicines for the same intentions, they are not worth much regard.

2. Sleepy Nightshade.

Alkekengi floribus confertis. *Plum. 101*

This, though called a *nightshade*, is properly a species of *winter-cherry*. The difference is not so great, that we should wonder old authors, less accurate than we in the characters of the genera, did not perceive it.

The root is long and thick.

The first leaves are very large, broad, short, obtusely pointed, and supported on short footstalks: their colour is a deep green.

The stalk is round, upright, and two feet high: toward the top it usually divides into several branches.

The leaves are placed on short footstalks, and resemble those from the root: they are also of a dusky green on the upper side, but paler underneath.

The flowers grow in clusters round the stalk at the joints; and they are small, and of a yellowish white.

The berry is small and red: it remains in the cup, where it is defended by a woolly matter.

It is a native of the warmer parts of Europe, and flowers in July.

C. Bauhine calls it *Solanum somniferum verticillatum*.

It is accounted poisonous; but outwardly is in common use in Spain to promote sleep. The leaves are bruised for this purpose, and laid on the temples.

3. Woolly Winter-Cherry.

Alkekengi foliis lanuginosis. *Plum. 9*

The root is long, thick, and furnished with many fibres.

The stalk is firm, woody, and divided into branches.

The leaves are placed on slender footstalks; and they are short, broad, obtuse, of a whitish colour, and of a woolly surface.

The flowers stand singly on long footstalks rising from the bosoms of the leaves; and they are small, and of a very pale redish colour.

The berry is large, and of a coral red.

It

It is a native of Curaçao, and flowers in August.

Plukenet calls it *Solanum vesicarium Curaçavi-cum*. Solano antiquorum simile, foliis origani sub-incanis.

4. Many-flowered Hoary Winter-Cherry.

Alkekengi multiflorum foliis hirsutis. Pl. 40. 10

The root is long, thick, and furnished with a few fibres.

The stalk is round, firm, upright, and two feet high: it is of a greyish colour, and is covered lightly with a hoary matter.

The leaves are placed on slender footstalks:

they are also of a greyish green, hoary, and undivided at the edges: they are broadest toward the middle, and pointed at the end.

The flowers are placed on slender footstalks, which rise in great numbers from the bosom of every leaf; and they are small, and of a faint purple.

The berry is small and red, and it is contained in a skinny cup.

This is accounted poisonous, and is supposed to be the true *solanum somniferum* of the ancients; but their descriptions are so imperfect, that it is hard to determine that matter.

Alpinus calls it *Solanum somniferum antiquorum*. Others, *Solanum somniferum verum*.

G E N U S VI.

FRYARS COWL.

ARISARUM.

THE flower has no petals. The cup is very large, long, hollow, not upright, as in *arum*, but bending down toward the upper part, and split: the club within it resembles that of the *arum*, but it is also bent. The threads of the flower support square buttons. The berries are numerous, roundish, and set in a cluster.

Linnaeus places this among the *gynandria polyandria*; the threads being numerous, and fixed to the pistil. But he confounds it with the *arum*, making it only a species of that genus; whereas it evidently differs generically.

1. Broad-leaved Arisarum.

Arisarum latifolium. Pl. 40. 11

The root is a small, roundish, tuberous lump, with a few fibres at the top.

The leaves are supported singly on long, slender footstalks; and they are of a lively green, very large, oblong, heart-fashioned at the base, and pointed at the end.

The flower rises on a separate stalk in the centre of the tuft of leaves, and resembles that of the common *arum*: it is a great greenish cup, purple toward the top and at the edges; and it bends down, and splits at the extremity; within this is seen a purple club, which also bends forward.

The berries are small and red.

It is common in Spain and Italy, and flowers in June.

C. Bauhine calls it *Arisarum latifolium*.

2. Narrow-leaved Arisarum.

Arisarum angustifolium. Pl. 40. 12

The root is a small, roundish lump, brown on the outside, and white within.

G E N U S VII.

DRAGON.

DRACONTIUM.

THE flower has no petals. The cup is large, hollow, and formed of a single leaf. In this stands a club, in the same manner as in the *arum*; and the buttons of the flower, and rudiments of the berries, are at the bottom. The fruit is a cluster of berries, numerous, large, and red. The leaves are divided in the manner of fingers.

Linnaeus places this among the *gynandria monogynia*, the buttons being numerous, and fixed to the pistil.

This author makes it a species of *arum*, reserving the name *dracontium* for a distinct genus, altogether unlike the plant to which this name has been appropriated; and comprehending some species usually called *arum*. The student will from this avoid the confusion.

1. Common

1. Common Dragon.

Dracontium vulgare. Pl. 40. 13

The root is large, thick, and furnished with numerous and spreading fibres.

The first leaves are very large, and very beautiful: they are placed singly on long, thick footstalks; and are of the palmated kind, formed of numerous, long, and moderately broad segments, disposed like fingers on a hand.

The stalk rises among these; and is round, upright, thick, of a spongy substance, and four feet high.

The leaves on this are placed singly on very long footstalks, and resemble those from the root, being composed of many segments, and of a beautiful green.

The flower is very large, and is placed singly at the top of the stalk. The cup is green on the outside, but of a deep and beautiful purple within. The club is very large, and of a fine red, sometimes white.

The berries are placed together in a large cluster, and are red when ripe.

The stalk of this species is usually of a whitish colour, stained and speckled in a curious manner, like the skin of a serpent, with purple and green: it thence obtained the name.

It is a native of the warmer parts of Europe, and flowers in August.

C. Bauhine calls it *Dracunculus polyphyllus*. Others, *Dracontium*.

We cultivate it in gardens for its singularity and its virtues. It has the credit of being a powerful sudorific and resister of poison; but it is not much regarded in the present practice.

2. American Dragons.

Dracontium Americanum spadice longissima. Pl. 40. 14

The root is composed of a thick head, from whence rise many long creeping fibres.

The first leaves are supported on long footstalks; and they are of the palmated kind: each is composed of about seven oblong and broad segments, resembling so many separate leaves; and these are of a pale green.

The stalk is round, upright, and a foot high.

The leaves on this perfectly resemble those from the root; but they are smaller: they are also of a paler green.

The flower stands at the top; and is formed of a short, hollow case, with a very long club rising up far beyond its top, and terminating in a small point.

The berries are numerous, large, and, when they are ripe, of a fine red.

It is a native of America, and flowers in May.

Herman calls it *Arum polyphyllum minus* & *bumilius*. Others, *Dracontium Americanum*.

G E N U S VIII.

THE flower resembles that of the *arum*, and has no petals. The cup is composed of a single leaf, of an oval shape, but pointed, and coloured. The club is upright, short, and hid among the buttons and rudiments of the fruit. This is a cluster of round berries, in which are contained many oblong, obtuse seeds.

Linnaeus places this among the *gynandria polyandria*; the threads in the flower being numerous, and fixed to the pistil.

Water Dragon.

Calla aquatica. Pl. 40. 15

The root is long, thick, and jointed: it runs obliquely in the mud in shallow waters, and sends up numerous leaves from various parts.

These rise in clusters; and are supported singly on long, thick footstalks: they are broad, short, of a heart-fashioned shape, sharp-pointed, and of a deep green.

The stalks are round, thick, and upright, of a pale green, and about six inches high: they rise in the middle of the tuft of leaves, and are surrounded by the bases of several of them at the

bottom: they are from thence nicked to the top, where there stands the cup, formed of a single leaf, and split to receive the stalk. This is of a pale green, and remains with the fruit. The club rises within this; but it is short, and hid among the threads, which are whitish, with yellow buttons.

The berries ripen in a small cluster, and, when ripe, are of a fine red.

It is common in the ditches in Holland, and flowers in May.

C. Bauhine calls it *Dracunculus radice arundinacea*. Others, *Dracunculus aquaticus*.

G E N U S IX.

ALEXANDRIAN LAUREL.

HIPPOGLOSSUM.

THE flower has no petals. The cup is composed of six oval, convex leaves; three of which stand inward, and three outward; and it is placed on the under-side of the leaf. The fruit is a round berry, divided into three cells within, and containing in each two seeds of a roundish figure.

N° XXXIV.

4 R

Linnaeus

Linnaeus places this among the *diœcia syngenesia*, making it a kind of *rufous*; but the situation of the flowers is a sufficient distinction; and the difference is confirmed by the general aspect of the plant.

1. Long-leaved Alexandrian Laurel. *Hippoglossum fruticosum sub foliolis longifolia.* related Alexandrian bay, not laurel: but custom has rendered it otherwise; and the name upon the whole is too bad for amendment. It is fit the reader know these vulgar names of plants with the more proper.

The root is composed of numerous fibres, thick, long, crooked, entangled one among another, and penetrating to a great depth.

The stalks are numerous, firm, tough, woody, branched, and spreading: they are four feet high, and in the whole usually form a large bush.

The leaves are large, of a firm substance, and fine deep green: they are long, but considerably broad, small at the base, broadest toward the middle, and sharp at the point; and they are marked all the length with large longitudinal veins.

On the middle of each leaf there grows another small one; and under this rises the pedicle, which supports the flower; sometimes there is only one, sometimes the stalk splits, and supports one on each division.

The footstalk is slender and short.

The flower is small and yellowish.

The berries are large, round, and, when ripe, of a fine red.

It is common in damp forests in the warmer parts of Europe, and flowers in June.

C. Bauhine calls it *Laurus Alexandrina fructu pediculo infidente.* Others, *Hippoglossum vulgare*, and *Hippoglossum mas.*

What is called the female *hippoglossum* is only a variety of this, not a distinct species, differing only in size and in the colour of the fruit, which inclines to orange. The Latin name should be trans-

2. Broad-leaved Alexandrian Laurel. *Hippoglossum latifolium fructu folio infidente.*

The root is composed of numerous, thick, and spreading fibres.

The stalks are woody, tough, and of a pale green colour, but slender, and seldom much branched.

The leaves are broad and short: they are of a pale green, and have high ribs running lengthwise; and they terminate in a sharp point.

The flower is small and greenish: it grows to the middle of the leaf, and is of a pale, greenish, yellow colour.

The berry is round, large, and, when ripe, of a fine red.

It is a native of the warmer parts of Europe in woods and damp thickets. It flowers in May.

C. Bauhine calls it *Laurus Alexandrina fructu folio infidente.*

Both kinds have the credit of being excellent vulneraries; but they are rarely used. These sort of medicines in general owed their credit to fancy, rather than to any real virtues; and a better knowledge of surgery has now banished their use.

The END of the NINETEENTH CLASS.



THE

BRITISH HERBAL.

CLASS XX.

Plants which have a perfect flower, of a plain and regular structure; and have one seed after every flower, standing naked in the cup.

THIS is a class plainly distinguishable by Nature from all others, but confounded, like too many of the rest, by the modern systems of botany. The two essential requisites to a general character are, that it be certain, and that it be obvious: the first prevents error, the other perplexity; and there is no where in Nature a character more happily established to answer these purposes than in the present instance.

Mr. Ray, who followed Nature closely, perceived it; and has founded one of his classical distinctions upon it. He has therefore kept together these plants, so truly allied, and so perfectly separated from all others: but those who have limited themselves for the classick characters solely to the threads in the flowers of plants, have thrown the genera, thus connected together by Nature, into many different parts of their works, and joined them with plants to which they have no affinity.

Linnaeus led the way to this, compelled by the very foundation of his system: but when that author saw the necessity of thus separating plants evidently joined by Nature in the course of his enquiry, he should have given up the method, not violated her laws. No plants have shewn the great constraint his system lays upon Nature equally with these, which are thus, by means of the single seed, classed so easily and so regularly.

SERIES I.

Natives of BRITAIN.

Those of which one or more species are naturally wild in this country.

GENUS I.

VALERIAN.

VALERIANA.

THE flower is formed of a single petal, hollowed, and crooked at the bottom, and divided into five segments at the edge. The cup is very small, and is divided in an extremely slight manner into five segments: in some species the division is scarce perceptible. The seed is naked, single, and of an oblong form, and winged with down. The leaves stand in pairs.

In some species the outer skin of the seed is loose; and in these less accurate observers have spoke of a seed-vessel, supposing this skin a capsule; but their difference from the rest is more than this.

Linnaeus places this genus among the *triandria monogynia*; the threads in the flower being three, and the style from the rudiment of the fruit single. But he is obliged to acknowledge vast variations in some of the species in this respect; such indeed as speak very plainly the impropriety of the system he has established. In some species there are but two threads in the flower, in others there is only one,

in the generality three. In all these cases the plants have the threads and the style in the same flower; but in others there are distinct male and female flowers. All this Linnæus acknowledges; and he owns also, that the plants are all species of *valerian*. Let us reason on this with impartiality. The having one, two, or three threads, is, according to this author, the mark for plants belonging to one or another class: therefore, as he allows all the species in which these differences are found to be still *valerians*, all plants of one and the same genus, it follows, that, according to his method, the several species of the same genus may belong to different classes. This needs no remark. The species of *valerian* should, according to this author, have been placed asunder in four distinct classes: this appears by their parts, and by his characters; both invariable, and incompatible with one another. His system, therefore, is not conformable to nature or reason.

The author was himself sensible of this; for he has not made different genera of these several *valerians*, but has placed them all together under one head in his class of *triandria*, following by force the method of Nature in keeping them together, though to the everlasting disgrace of his system.

DIVISION I. BRITISH SPECIES.

1. Great, smooth Water Valerian.

Valeriana aquatica glabra maxima. Plag. 1

The root is composed of numerous, thick fibres, and sends out several creeping branches just under the surface.

The first leaves are large, and beautifully pinnated: each is composed of five or six pairs of pinnae, fixed to a slender, redish middle rib, with an odd one at the end: they are of a pale green, oblong, somewhat broad, slightly indented at the edges, and sharp-pointed.

The stalk is round, upright, firm, striated, rarely at all branched, and five feet high.

The leaves stand on it in pairs in a regular and beautiful manner: they are pinnated like those from the root; and they are of a pale green.

The flowers stand at the tops of the stalks; and are small, and of a pale, but elegant flesh-colour: they are placed in large, round tufts, like umbells.

The seeds are small, oblong, and winged with down.

It is common by waters, and flowers in July. C. Bauhine calls it *Valeriana sylvestris major*; a name most others copy; but it is improper, because it does not distinguish it from a species next to be described, which should be known distinctly, because of its great virtues. It will be better therefore to call it the *great, smooth water valerian*, and in Latin *Valeriana aquatica glabra maxima*.

2. Wild Valerian.

Valeriana sylvestris montana. Plag. 2

The root is composed of numerous, thick, whitish fibres; and is of a very strong and disagreeable smell, and of a pungent taste.

The first leaves are placed on slender footstalks; and they are composed of five, six, or more pairs of pinnae: they are of a dusky green, slightly notched at the edges, and hairy.

The stalk is firm, upright, striated, and a yard high.

The leaves stand in pairs, and are pinnated like those from the root; but they are composed of more numerous pinnae: there are eight or more pairs on each; and they are narrow, serrated, sharp-pointed, and of a faint green.

The flowers stand at the tops of the stalk in a large umbel: they are separately very small; and their colour is white, with a faint tinge of flesh-colour.

The seeds are single, naked, and winged with down.

It is common on heaths, and near woods, and flowers in August.

C. Bauhine calls it *Valeriana montana sylvestris major*. Rivinus, *Valeriana sylvestris folio angustiore*.

This is a plant of very great virtues. The root possesses them in the highest degree; and it is to be gathered before the herb rises into a stalk, and dried for use: after this it may be given in powder or tincture.

It is excellent against nervous complaints. It cures inveterate headaches, tremblings, palpitations of the heart, vapours, and all that train of miserable disorders included under the name of *nervous*. It is also good in hystrick cases, greatly promoting the menses. Epilepsies have been cured solely by this medicine.

Fabius Columna, an author of great knowledge and strict veracity, gives a great account of its virtues as experienced by himself; and the late Dr. Douglas took pains to revive its use, to the advantage of mankind. It is by his recommendation restored to the shops, and makes a very considerable article in modern prescription for those cases.

3. Small Wild Valerian.

Valeriana sylvestris minor. Plag. 3

The two former species have the first leaves that rise from the root, pinnated like those on the stalk; but in this and several others they are perfectly different.

The root is long, slender, and furnished with many fibres: it sends off a kind of shoots near the head, which run under the surface; and from these rise tufts of leaves in several places.

These leaves, which rise immediately from the root, or from its underground shoots, are broad, oblong, of a fresh green, and placed singly on long, slender footstalks.

The stalk is upright, striated, of a pale green, and a foot high.

The leaves on this are beautifully pinnated: each is composed of five or more pairs of slender, oblong pinnae, fixed to a middle rib, with a larger at the end; and they are of a pale green, smooth, and not indented at the edges.

The flowers stand at the top of the stalk, and also on short footstalks rising from the bosoms of the upper leaves, in great regularity; and they are

are of a pale flesh-colour: singly they are small, but the tufts of them are large and beautiful.

The seed is small, and single: it stands naked, and winged with down.

It is common in meadows, and flowers in July.

C. Bauhine calls it *Valeriana palustris minor*. Others, *Valeriana sylvestris minor*.

4. Little-flowered Marsh Valerian.

Valeriana palustris floribus minimis.

The root is composed of numerous, thick fibres.

The first leaves are placed singly on long, slender footstalks; and are oblong, undivided, and of a dusky green.

The stalk is upright, striated, not at all branched, of a pale green, and two feet high.

The leaves on it are placed opposite, and pin-

nated: the pinnae are narrow; and the colour is a pale green.

The flowers stand in tufts at the top of the stalks; and they are very small, and of a faint flesh-colour.

The seeds are large, single, oblong, and winged with down.

It is common in boggy places, and flowers in July.

Ray calls it *Valeriana sylvestris sive palustris minor aliera*.

All these species agree in their nature and qualities with the second kind; but they possess them in an inferior degree. The great care must be not to gather by mistake one of them for another. This single caution may prevent the error, that these grow in wet places, and that always in dry upland ground.

DIVISION II. FOREIGN SPECIES.

1. Garden Valerian.

Valeriana hortensis major. Plag. 4

The root is long and thick: it runs obliquely under the surface, and sends out many fibres.

The first leaves rise in tufts on a kind of thick shoots from the main root: these are placed singly on long, slender footstalks; and they are oblong, moderately broad, narrow at the base, obtuse at the end, not at all divided at the edges, and of a strong and pleasant green.

The stalk is round, upright, firm, and of a pale green: it is not striated, as in the wild kinds.

The leaves on this are placed in pairs; and they are large, pinnated, and of a paler green: each is composed of about four pairs of pinnae, with an odd one at the end of the rib; and these are narrow, pointed, and undivided at the edges.

The flowers grow in large tufts at the top of the stalk, and of shoots rising from the bosoms of the upper leaves; and they are of a pale red.

The seed is single, large, and downy.

It is a native of Alsace, but is kept in gardens for its virtue. It flowers in August.

C. Bauhine calls it *Valeriana hortensis*; and most others copy that name. Some call it *phu*.

The root is good against vertiges, pains in the head, and other nervous complaints. It is recommended also greatly against malignant fevers. The fresh root, given in decoction, operates by urine, and is good against obstructions of the viscera. For nervous complaints it is best given in powder; but the root of our *common wild valerian* is greatly superior to it for this purpose.

2. Red Valerian. Plag. 5

Valeriana floribus rubris caudatis.

The root is long, thick, and brown; and has a few large fibres.

The first leaves are oblong, broad, and of a greyish green: they have no footstalks; and they are smooth, undivided at the edges, and pointed at the end.

The stalk is round, upright for two-thirds of its height, and of a greyish green: toward the N° 34.

top it usually bends, which is owing to its slenderness, and to the weight of the tufts of flowers.

The leaves are placed on it in pairs; and they are oblong, broad, and of a bluish green: they have no footstalks: they are undivided at the edges, and pointed at the ends.

The flowers grow in great clusters at the top of the stalk, and at the extremities of shoots rising from the bosoms of the leaves: they are of a beautiful red: their tubular part is very long and slender, and terminates in a kind of spur.

The seed is single, oblong, and winged with down.

It is common wild in Italy on barren hilly ground, and upon walls. It flowers in August.

C. Bauhine calls it *Valeriana rubra*. Others, *Valeriana rubra Dodonæi*.

3. Narrow-leaved Small Valerian.

Valeriana minor angustifolia. Plag. 6

The root is long, thick, brown, and furnished with many fibres.

The first leaves rise in a small tuft; and are supported on short footstalks: these are continued to the bases of the leaves, and appear to be only that part extended in length.

They are oblong, narrow, and of a fresh green, sharp-pointed at the end; and usually there is one indenting on the side, and no more.

The stalk is round, weak, and of a pale green: it is ten inches high, rarely branched, and scarce upright, the top usually bowing.

The leaves on this resemble those from the root; but they are narrower: they have no footstalks. Their colour is a pale, yellowish green; and they have one or two indentings.

The flowers stand in clusters at the tops of the stalk, and of shoots from the bosoms of the leaves; but they are not so numerous as in the preceding kinds: they are small, and of a pure white.

The seed is oblong, single, and winged with down.

It is a native of the rocky mountains of Germany, and flowers in July.

C. Bauhine calls it *Nardo Celtico similis inodora*. Others, *Valeriana saxatilis*, and *Valeriana Alpina angustifolia*.

4. Celtick Spikenard.

Valeriana foliis ovatis obtusis. Plag.

It was with reason C. Bauhine named the last described species as resembling the *Celtick Spikenard*; for they are so like in their general aspect, that a common eye might take them for the same plant; though, on a closer examination, they are found to differ widely.

The root of *Celtick Spikenard* is very long, thick, and brown: it runs obliquely into the ground; and has numerous, large, and long fibres: and its surface is covered with a brown scaly matter, the remains of footstalks of former leaves: it is of a fragrant smell, as is also the whole plant.

The first leaves rise in a considerable tuft: they are of an oblong form, but approaching to oval: they have long bales, which serve as footstalks; and they are broad, and obtuse at the ends, not at all indented at the edge, and of a fine green.

The stalks are weak, slender, round, of a pale green, and six or eight inches high.

The leaves on these are oblong, narrow, obtuse, not at all indented, and of a fine strong green.

The flowers stand at the top in small, but thick tufts; and they are of a beautiful pale red, resembling that of a damask rose.

The seeds are small, oblong, and winged with down.

It is common in France, Spain, and Italy. It flowers in July.

C. Bauhine calls it *Nardus Celtica Dioscoridi*. Others, *Nardus Celtica*.

The root is celebrated as a cordial and sudorific: it is a warm and gentle medicine; and, taken for a continuance in tincture or powder, it strengthens the stomach, prevents flatulencies, and opens obstructions of the viscera.

G E N U S II.

LAMBS LETTUCE.

VALERIANELLA.

THE flower is formed of a single petal, which is tubular at the bottom, and crooked, and at the edge is divided into five segments. The cup is very small, and lightly indented in five places at the rim. The seed is single, naked, and is not winged with down.

Linnaeus places this among the *triandria monogynia*; the threads in the flower being three, and the style from the rudiment of the fruit single. But he improperly joins it with the valerian; whereas not only the habit and general aspect of the plant perfectly differs, but the seed has no down; which is an essential, determinate, and properly generic character.

1. Common Lambs Lettuce. *Plag.**Valerianella vulgaris caule dichotomo. 149. 10*

The root is small, oblong, and furnished with a few fibres.

The first leaves rise in a cluster, and are of a faint pale green: they have no footstalks: they are oblong, moderately broad, smooth, undivided at the edges, and rounded at the end.

The stalk is upright, weak, slender, and ten inches high: it runs up single about half its height, and there splits into two parts; and each of these divide again once or more in the same manner; so that the top is spreading and flat.

The leaves stand in pairs; and are oblong, and obtuse at the end: they have no footstalks, and they are of a faint green.

The flowers are very small, and white, with a slight tinge of blue: they stand in small, thick tufts at the tops of all the divisions of the stalk.

The seeds are single, small, and naked.

It is common in corn-fields, and wild in gardens. It flowers in May.

C. Bauhine calls it *Valeriana campestris inodora major*. Others, *Valerianella*, *Lactuca agnina*, and *Lactuca*.

The young leaves are eaten in sallads, and have a pretty, but rather insipid taste: they are very wholesome.

The leaves of this plant vary extremely: naturally they are as here described, undivided at the edges, and obtuse at the end; but in a starved soil they will be narrower, sharp-pointed, and fer-

rated; and sometimes they are divided more deeply. These, and other accidental varieties of a like kind, have been described by authors as distinct species; but the student must avoid those errors.

2. Great-seeded Lambs Lettuce.

Valerianella femine magno.

The root is small and fibrous.

The first leaves are oblong, broad, obtuse, large, and of a pale green.

The stalk is a foot high, slender, whitish, and upright, and divided at the top in the same manner as in the common kind, always by splitting into two.

The leaves stand in pairs; and they are oblong and sharply serrated, and of a faint green.

The flowers stand in small, thick tufts, and are little and white, with a very slight tinge of blue.

The seeds are single and large; and they have a swelled look: one follows every flower.

It is common in corn-fields, and flowers in July.

Morison calls it *Valerianella vulgaris speciosior serotina*; and Ray takes the same name.

That author mentions also a small kind, with serrated leaves; but that, as we have observed before, is only a variety. This is a distinct species. The whole aspect and size of the plant, and its late flowering, shew this; and it is confirmed by the shape, size, and swelled look of the seed, which is an absolute and invariable character.

G E N U S III.

SEA-LAVENDER.

LIMONIUM.

THE flower is composed of four petals: these are oblong, narrow at the bottom, and broad at the top; and they unite so as to form an oblong, slender tube. The cup to each flower is small, formed of a single leaf, tubular, and wide at the mouth: it is not divided, but is folded at the edge. There is besides this a common or general cup, serving to many flowers, and containing a long series of them. This is of an imbricated form. The seed after every flower is single, naked, and contained in the cup.

Linnaeus places this among the *pentandria pentagynia*; the threads in the flower being five, and the styles from the rudiment of the seed the same in number.

This author confounds the *sea lavender* with *thrift*. He takes away the generic name *limonium*, and makes all these plants species of *statice*: but there is an absolute and essential distinction in the general cup, which supports that in the form and universal aspect. Thus Nature confirms her obvious differences, and thus this author has confounded them; not heedlessly, for he names this very difference, acknowledging, that while the common cup of the *limonium* contains a great number of flowers in a long series, and is simple, and of an oblong form; that of *statice* is triple, and comprehends them in a round cluster. This we shall explain at large in its place, treating of *statice*.

We have in this plant an instance also of Linnaeus's error in separating the naturally-allied genera of the present class, the *valerian* and *valerianella* being placed among the *trigynia*, and this and the *statice* among the *pentagynia*. But this is little to what we shall have occasion to observe in the succeeding genera.

DIVISION I. BRITISH SPECIES.

1. Common Sea-Lavender.

Limonium vulgare. Plag.

The root is long, thick, divided, and spreading.

The leaves rise in a large tuft: they are oblong, and considerably broad: they have short footstalks, and are of a deep, dusky, bluish green.

The stalk is round, firm, upright, and divided into many branches: it is of a pale green, and has no leaves.

The flowers stand at the tops of the branches in several long series, principally on one side; and they are small and purple.

The seed is single, small, roundish, and brown.

It is common in salt marshes, and about our coasts. It flowers in June.

C. Bauhine calls it *Limonium maritimum majus*. Others, *Limonium vulgare*.

The roots of this plant are powerfully astringent: they may be given in decoction, or in powder; and they stop loosenesses.

The seeds are good in the diabetes.

2. Dwarf Sea-Lavender. *Plag.**Limonium foliis sessilibus parvum.*

The root is long, slender, of a reddish colour, and furnished with several fibres.

The leaves rise in a cluster; and are small, and of a pale bluish green: they are oblong, narrow, and sharp-pointed; and they have no footstalks, but rise from the root immediately by a narrow base.

The stalks are numerous, slender, and divided

into several branches: they are usually naked, as in the other; but sometimes there grows a leaf or two near their base, resembling those from the root.

The flowers are small, and of a very pale fleshy purple: they stand in many long series on the tops of the branches.

It is common on our salt marshes, and flowers in May.

Some have confounded it with the former as a variety; but its leaves speak it a perfectly distinct species.

Ray calls it *Limonium minus*. Others, *Limonium parvum*.

3. Sea-Lavender, with umbellated flowers.

Limonium floribus umbellatis.

The root is long, thick, of a dusky brown, and furnished with many fibres.

The leaves rise in a large tuft; and they are long, narrow, sharp-pointed, of a deep green, and placed on short, red footstalks.

The stalks are numerous, tall, thick, and divided toward the top into numerous branches: the height of the plant is a foot and half, and its tops spread two feet in breadth.

The flowers are small and purple: they stand at distances from one another, and form a kind of umbel.

It is common about our southern coasts, and flowers in July.

Ray calls it *Limonium Anglicum minus caulibus ramosis, floribus in spicis variis sitis*. *Minus* is an ill term, for it often grows very large.

DIVISION II. FOREIGN SPECIES.

Fine-leaved Sea-Lavender.

Limonium foliis tenuissimis. Plag. 11

The root is long, slender, and furnished with a few fibres.

The first leaves rise in a thick tuft; and they are long, very slender, and grassy: sometimes they are divided, but usually quite simple.

The stalk is round, upright, and of a pale green: it divides toward the top into a vast number of branches.

The leaves on this are very small, oblong, and composed of a very few slender segments.

The flowers stand at the tops of the stalks in short clusters, and are of a pale red.

The seeds are small, single, and naked.

It is a native of the coast of Africa, and flowers in June.

Plukenet calls it *Limonium minimum comatum elegans*.

GENUS IV.

BASTARD TOADFLAX.

THESIUM.

THE flower has no petals. The cup is formed of a single piece, lightly divided into five obtuse segments; which stand upright, and are coloured on the inner side: some have called them, but erroneously, petals. The seed is single, roundish, and naked: it remains in the bottom of the cup. Linnæus places this among the *pentandria monogynia*; the threads in the flower being five, and the style single.

He takes away its old name *linaria adulterina*, and calls it *thesium*. The other must be acknowledged a very ill constructed general term.

DIVISION I. BRITISH SPECIES.

Common Bastard Toadflax.

Thesium vulgare. Plag. 12

The root is long, thick, divided, and furnished with numerous fibres.

The first leaves rise in a tuft; and are oblong, narrow, sharp-pointed, and undivided at the edges: their colour is a pale green, and they have no footstalks.

The stalks are roundish, upright, brown, and a foot high: they are not much branched, and they generally grow many together.

The leaves are numerous, and placed irregularly: they are long, narrow, and sharp-pointed: they have no footstalks; they are undivided at the edges, and of a pale green.

The flowers stand in great number at the tops of the stalks in a kind of spikes; and they look white, the inside of the cup being of that colour. The seed is single and large.

It is common on some hilly grounds, and flowers in June.

C. Bauhine calls it *Linaria montana flosculis albicantibus*. Others, *Alfine linarie folio*, and *Linnophyllon*.

We have an instance in this plant how very carelessly the old writers imposed names. There is no resemblance of *linaria* in the flower of this plant. The leaves and manner of growing were the occasion of the title.

Its virtues are unknown.

DIVISION II. FOREIGN SPECIES.

1. Yellow-flowered Bastard Toadflax.

Thesium flore flavo. Plag. 13

The root is long, thick, brown, and furnished with many fibres.

The stalk is round, upright, slender, and ten inches high.

The leaves stand alternately; and they are oblong and broad, of a pale green, undivided at the edges, and obtuse at the end.

The flowers stand at the tops of the branches in small clusters about five together: they are little, and of a gold yellow.

The seed is single, round, and naked.

It is common in the pastures of Virginia and Pennsylvania, and flowers in July.

Plukenet calls it *Centaureum luteum ascyroides Virginianum*. Linnæus, *Thesium floribus umbellatis foliis oblongis*.

GENUS V.

AGRIMONY.

AGRIMONIA.

THE flower is composed of five small petals: they are broad, and nipped at the top; and they have narrow bases, by which they adhere to the cup. The cup is double; the inner one is small, and stands upon the rudiment of the fruit: this is divided slightly into five segments, and it is hid as it were by the other or outer, which is larger. The seed is single, naked, rough, and has a double kernel.

Linnæus places this among the *dodecandria digynia*; the threads being twelve in each flower, and the styles from the rudiment of the fruit two.

DIVI-

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DIVISION I. BRITISH SPECIES.

Common Agrimony.

Agrimonia vulgaris. Plag. 14

The root is formed of several thick, tough fibres.

The first leaves are numerous, large, and pinnate: they have short, redish footstalks; and each is composed of about four pair of pinnae, with an odd one at the end: their colour is a beautiful fresh green on the upper side, and greyish underneath.

The stalk is round, firm, upright, and two feet high: it is thick, hairy, not at all branched, and of a redish colour.

The flowers are small, and of a gold yellow: they are placed in a long, slender spike at the top of the stalk.

The seeds are large and rough, with a kind of hooked hairs.

It is common in our pastures, and flowers in July. C. Bauhine calls it *Eupatorium veterum*, five *Agrimonia*. Others, *Agrimonia*, and *Agrimonia vulgaris*.

It is a diuretick and deobstruent, greatly recommended by the antients, but very much neglected in the present practice. It opens obstructions of the viscera, and is good in the jaundice. It also gently and safely promotes the menses.

The fresh leaves make a tea not unpleasant; and, taken constantly in this method, the effect will be very happy in regularly bringing on that discharge. A syrup of the root is also recommended against catarrhs.

DIVISION II. FOREIGN SPECIES.

Small-flowered Agrimony.

Agrimonia floribus parvis. Plag. 15

The root is long, thick, and furnished with many fibres.

The first leaves rise in a small tuft; and are oblong, and irregularly pinnate: each is composed of four or five pairs of small pinnae, of an uncertain size, arranged in pairs along a middle rib; at the extremity of which there stand three larger and more regular segments: they are of a deep green on the upper side, and grey underneath.

The stalk is round, upright, hairy, redish, and a foot and half high.

The leaves on the lower part of this resemble those from the root; but those toward the top are composed only of three segments, such as terminate the three others.

The flowers are small and yellow.

The seeds are large, naked, and smooth.

It is common among trees in Italy, and flowers in August.

C. Bauhine calls it *Agrimonia similis*. Others, *Agrimonioides*.

GENUS VI.

THRIFT.

STATICE.

THE flower is formed of five petals, narrow at the base, broader toward the top, and joined at the sides so as to form a kind of bell. There are two cups, one proper and particular to each flower, the other general or common to the whole tuft. The proper cup is formed of a single leaf; and is of a hollow shape, narrow at the base, and wide at the rim, where it is folded or wrinkled, but not cut into segments. The general cup is triple, and it collects the whole tuft of flowers into a kind of round head. The seed is single and small, roundish, and placed naked in the proper cup of each flower.

Linnæus places this among the *pentandria pentagynia*; the threads in the flower being five, and the styles of the same number.

Common Thrift.

Statice vulgaris. Plag. 16

The root is long, thick, and furnished with a few fibres: toward the top it usually divides into two or three heads; and from each of these rises a large cluster of leaves.

The leaves are long, narrow, and grassy: their colour is a bluish green; and they are smooth, undivided at the edges, and sharp-pointed.

The stalk rises in the centre of a tuft of these leaves; and it is round, upright, simple, naked, and of a pale greyish green.

The flowers stand at the top, a great number together, in a round cluster: they are moderately large, and of a pale fleshy purple.

N^o 34.

The seed is small, round, and of a deep brown. It is common about our sea-coasts, and flowers in June.

Its regular growth, and the beauty of its flowers, have introduced it into gardens, where it serves instead of box for the edgings of borders.

C. Bauhine calls it *Caryophyllus montanus minor*. Lobel, *Caryophyllus maritimus minimus*. Others, *Statice montana*.

The addition of *montana* is not absurd, for in many parts of Europe it is frequent on hills far from the sea. Culture makes variations in this plant; but there is no other known species distinct from this.

The root is said to be astringent; but it is not used.

4 T

GENUS

G E N U S VII.

BURNET.

SANGUISORBA.

THE flower is composed of a single petal, deeply divided into four segments: these are broad, and obtuse at the end, narrow at the base, and united only at their very bottoms; so that the flower, to an incurious observer, would seem to have four petals. The cup is composed of two small leaves: these are short and broad: they stand opposite to one another, and they fall with the flower. The seed is single, naked, and roundish, and has a double kernel.

Linnaeus places this among the *tetrandria monogynia*; the threads in the flower being four, and the style from the rudiment of the fruit being single.

1. Common Burnet.

Sanguisorba vulgaris. *Pl. 49. 7*

The root is long, thick, and furnished with many fibres.

The first leaves are long, and very beautifully pinnated: each is composed of six or more pairs of pinnae, with an odd one at the end; and these are short, broad, serrated, and sharp-pointed. Their colour is a beautiful green.

The stalk is slender, upright, and toward the top it is divided into several branches: the leaves on it are like those from the root, each composed of several pairs of dentated pinnae, with an odd one at the end.

The flowers are placed in small oblong heads at the tops of the branches: these heads are brown, but the flowers themselves are of a faint purple.

The seeds are small and cornered.

It is common by road-sides, and in hilly pastures. It flowers in June.

C. Bauhine calls it *Sanguisorba minor*. Others, *Pimpinella vulgaris*, and *Pimpinella sanguisorba minor*.

2. Great Burnet.

Sanguisorba major. *Pl. 49. 10*

The root is composed of numerous thick fibres.

The first leaves are large and pinnated: each is composed of three or four pairs of pinnae, with an odd one at the end; and these are oblong, moderately broad, and sharp-pointed, serrated at the edges, and of a deep green.

The stalk is upright, slender, branched, and two feet high.

The leaves on this resemble those from the root; but they are smaller.

The flowers stand at the tops of the branches in short oblong heads: they are of a very faint and dull purplish colour; and the heads are brown between them.

The seeds are small and cornered.

It is common in pastures, and flowers in July.

C. Bauhine calls it *Sanguisorba major*.

These two species have the same general qualities; but the first possesses them in the greater degree. It is a cordial and sudorific: it was much used formerly to give a flavour to wine, but it is now neglected.

It is an astringent of considerable power. The root dried and powdered stops purgings; or it may be given in form of a strong decoction to the same purpose. The juice of the leaves is good against hemorrhages.

G E N U S VIII.

MEADOW-RUE.

THALICTRUM.

THE flower is composed of four petals: they are roundish, and hollowed, and are of short duration. There is no cup. The seed is single after every flower, and it is surrounded by a rough wrinkled skin. The leaves are divided into many parts, and the flowers grow in clusters.

Linnaeus places this among the *polyandria polygynia*; the threads in the flower being numerous, and growing to the receptacle; and the styles from the rudiment of the seed also numerous.

DIVISION I. BRITISH SPECIES.

1. Common Meadow-Rue.

Thalictrum vulgare. *Pl. 50. 1*

The root is composed of innumerable long, thick, and spreading fibres.

The stalk is firm, upright, striated, purplish toward the bottom, and three feet high.

The leaves are large, and very beautifully divided or composed of numerous small parts, placed

on separate short footstalks, on a large divided rib: these are notched at the edges, especially toward the points; and are of a bluish green, but deep and dusky.

The flowers are small and whitish: they stand in great clusters on the stalks.

The seeds are brown.

It is common in meadows, and flowers in July.

C. Bauhine

C. Bauhine calls it *Thalictrum majus filiqua angulosa striata*. Others, *Thalictrum vulgare*, and *Thalictrum majus*, or *Thalictrum caule nigricante*.

2. Small Meadow-Rue.

Thalictrum minus. *Pl. 50. 2*

The root is long, slender, and creeping.

The stalk is round, of a pale brown, upright, scarce at all branched, and about eight inches high.

The leaves stand irregularly on it; and they are very beautiful: they are in the whole considerably large; but they are composed of many small parts, placed on a divided rib; and these are short, broad, and dented at the end. The whole tuft is of a tender substance, and deep purplish green colour.

The flowers stand at the tops of the stalk in a kind of umbel: they are small, and of a pale yellow.

The seeds are large, and their creft is wrinkled and brown.

It is found on hilly pastures in many parts of the kingdom, and flowers in July.

C. Bauhine calls it *Thalictrum minus*; a name copied by others.

3. Little broad-leaved Meadow-Rue.

Thalictrum minus foliis latioribus.

The root is composed of tough, slender fibres.

The stalk is round, upright, a foot high, branched, and of a purplish colour, especially toward the root.

The leaves are large, and of a dusky green:

they are composed of many parts, as in the former species; but these are broader and larger than in any other, of a deep green, and nipped at the top.

The flowers grow in a broad tuft at the top of the stalk; and are small and whitish, with a very faint tinge of yellow.

The seeds are small.

It is common on the Welch mountains, and flowers in May.

Ray calls it *Thalictrum minus montanum foliis latioribus*.

4. Meadow-Rue with shining leaves.

Thalictrum foliis splendidibus.

The root is small, and creeps under the surface.

The stalk is striated, weak, and not much branched: it is about a foot high, but rarely stands quite erect.

The leaves are large; and each is composed of numerous, broad segments, placed on short footstalks: these are nipped at the tops and sides. The whole leaf is of a deep blackish green on the upper side, and of a greyish green underneath.

The flowers stand at the tops of the stalks in rounded scattered tufts: they are white and small.

The seeds are small; and their coat is rough and purplish.

It is a native of our northern counties, and thrives best on damp ground upon hills. It flowers in April, and dies to the ground soon after.

Ray calls it *Thalictrum minimum montanum rubens foliis splendidibus*.

DIVISION II. FOREIGN SPECIES.

Narrow-leaved Meadow-Rue.

Thalictrum angustifolium. *Pl. 50. 3*

The root is composed of numerous tough, yellow threads.

The stalk is round, slender, purplish, upright, not at all branched, and a foot high.

The leaves are large, and of a fresh green: they are divided into numerous slender parts, and these are undivided at the edges, and sharp-pointed.

The flowers stand at the tops of the stalks in spiked clusters; and they are small and white, with a faint tinge of purple.

The seeds have a rough, brown coat.

It is found in the woods of Germany near springs. It flowers in July.

C. Bauhine calls it *Thalictrum pratense angustifolium folio*. Others, *Thalictrum foliis gramineis*.

These plants are not distinguished by any particular virtues by authors; but they deserve some notice. The country-people in Buckinghamshire boil the roots and young leaves of the common kind in ale, and take this as a purge. In a small dose it works by urine, and is good against obstructions of the viscera.

G E N U S IX.

FUMITORY.

FUMARIA.

THE flower is formed in the manner of the papilionaceous kind, but terminates behind in a spur. The cup is composed of two leaves, small, and placed opposite. The seed is naturally single, and inclosed in a loose skin. The leaves are divided, and the flowers are small.

Linnaeus places this among the *diadelphia hexandria*; the buttons on the threads in the flower being six, and arranged in two assortments.

There is no genus in which Nature wantons so much. This Linnaeus is obliged to acknowledge; who has placed it among his *diadelphia*; and it is as needful to be mentioned here, where, after the method of Mr. Ray, it is placed with the *thalictum*, among the single-seeded plants;

The seed, which is naturally single, and has its outer skin loose, in some species, has that membrane swelled into a kind of capsule; and in some others there is no cup to the flower. The analogy of parts in general shew these however to be true species of *fumitory*; and all authors have perceived it: therefore it is proper to keep them under the same generic name.

DIVISION I. BRITISH SPECIES.

1. Common Fumitory.

Fumaria vulgaris. *Ms. 4*

The root is long, slender, and furnished with many fibres.

The stalk is weak, of a pale green, scarce upright, divided into many branches, and a foot high.

The leaves are large, and of a faint green: they are divided into innumerable small parts, placed on a branched rib; and they are of a slender substance.

The flowers stand in spikes at the tops of the stalks and branches; and they are of a mixed red, partly flesh-colour, and partly purple.

The seed is large and brown.

It is common in our corn-fields, and in all other cultivated ground. It flowers in June.

C. Bauhine calls it *Fumaria officinarum et Dioscoridis*. Others, *Fumaria vulgaris*.

2. Great Ramping Fumitory.

Fumaria major.

The root is long, thick, white, and furnished with a few straggling fibres of the same colour.

The stalks are weak, and of a pale green, branched; and, when they can support themselves among bushes, two feet high.

The leaves are large, and of a whitish green: they are divided into numerous parts, or composed of many segments, as in the other; but these are broader.

The flowers stand in long, loose spikes at the tops of the stalks, and on footstalks rising from the bosoms of the leaves: they are large, and of a pale red.

The seeds are small and brown.

It is common in hedges at the sides of plowed lands, and flowers in August.

Ray calls it *Fumaria major scandens flore pallidior*.

3. Broad-leaved climbing Fumitory.

Fumaria latifolia claviculata. *Ms. 4*

This is a species so extremely different from the other in its form, that Mr. Ray has placed it in another class; but it is properly and truly a kind of *fumitory*.

The root is small, divided into several parts, and furnished with numerous fibres.

The stalk is round, weak, of a pale green, and very much branched: it is a foot high, but very weak, and unable to support itself upright, except by climbing; for which purpose Nature has given it many tendrils at the ends of the branches.

The leaves are broad and sharp-pointed: they grow in small clusters, and their colour is a bluish green.

The flowers stand three or four together in little heads on footstalks rising from the bosoms of the leaves: they are small and white, with a faint tinge of purple.

The seeds are small and brown.

It is common under hedges in our northern counties, but it is more scarce elsewhere. It flowers in August.

C. Bauhine calls it *Fumaria clavicularis donata*. Others, *Fumaria alba latifolia claviculata*.

The common *fumitory* is good against scorbutick disorders. The juice may be taken in doses of four spoonfuls; and it will operate gently by stool at first, but only as a deobstruent and sweetener of the blood afterwards. Some smother the dried leaves in the manner of tobacco for disorders of the head, with success.

DIVISION II. FOREIGN SPECIES.

Hollow-rooted Fumitory.

Fumaria radice cava. *Ms. 4*

The root is large, roundish, and hollow; and it is furnished with abundance of fibres.

The stalk is weak, of a whitish green, and about a foot high, but indifferently erect, and divided into many branches.

The leaves are large, and composed of numerous oblong indented segments: they are supported on separate footstalks; and they are of a pale bluish green.

The flowers stand at the tops of the stalks in spikes, and they are of a pale red.

It is a native of the warmer parts of Europe, and flowers in May.

C. Bauhine calls it *Fumaria bulbosa*. Others, *Fumaria radice cava*, and *Radix cava major flore purpureo*.

Its virtues are the same with those of the common *fumitory*; and, where it grows wild, it is used to the same purpose.

The END of the NINETEENTH CLASS.

THE

THE

BRITISH HERBAL.

CLASS XXI.

Plants which have labiated flowers, with four seeds following each, and placed naked in the cup; and whose leaves stand in pairs upon the stalks.

THIS is a class as obviously distinguished by Nature, and as perfectly separated from all others, as any the whole series of plants affords; and the generality of authors have paid so much regard to these her obvious characters, as to keep them together. They make the verticillate plants of Mr. Ray and others.

They could not but be kept together by all who formed their systems on the great and plain marks impressed on plants; because they so perfectly, and in so many characters, resemble one another, that they are plainly a single family; to which no plant can be added, and from which none can be separated without violence to the most essential distinctions: but the modern methods pay very little regard to Nature.

Linnaeus separates *betony* and *vervain* by twelve classes: not because one has, and the other has not labiated flowers, leaves in pairs, and four naked seeds; for in these most essential characters they agree: but because *betony* has four threads in the flower, two of which are longer, and two shorter, it is placed among the *didynamia*; and because *vervain* has only two, it stands among the *diandria*, separated from the rest of the labiated naked-seeded kind, and joined with *speedwell* and *enchantes nightshade*.

This may stand as an instance of the impropriety of modern systems. The reader will pardon me the unwilling task of producing more on this occasion, since he will discern them in the characters of the genera.

SERIES I.

Natives of BRITAIN.

Those of which one or more species are naturally wild in this country.

GENUS I.

MOTHER OF THYME.

SERPYPOLLUM.

THE flower is of the labiated kind, formed of a single petal, and gaping at the mouth. The upper lip is obtuse and small: the lower lip is longer, and divided into three segments; the middle one of which is larger than the others. The cup is divided into two lips; and the seeds are naked, small, and round.

Linnaeus places this among the *didynamia gymnospermia*; the threads in the flower being two longer and two shorter, and the seeds having no covering. He includes in the same genus several plants not properly belonging to it; and, instead of *serpyllum*, calls it *thymus*. This is a matter of indifference, for either name will do for both *thyme* and *mother of thyme*: but as we have most of the *serpyllum*, I have taken that.

N° XXXV.

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DIVI-

DIVISION I. BRITISH SPECIES.

1. Common Mother of Thyme.

Serpyllum vulgare. *N. 50. 7*

The root is small, fibrous, and hard.

The stalks are numerous, weak, and trailing: they are of a purplish colour toward the bottom, green at the top, and branched: they are six or eight inches long; and as they spread every way from the root, they naturally form a large tuft.

The leaves are small, and placed in pairs without footstalks: they are of an oval figure, but pointed; and their colour is a deep green.

The flowers stand in small tufts at the tops of all the stalks and branches; and they are moderately large, and of a beautiful purple.

The seeds are small, blackish, and round.

It is common on heaths in dry pastures, and by road-sides. It flowers in July.

C. Bauhine calls it *Serpyllum vulgare minus*. Others, *Serpyllum vulgare*. Our people, *Mother of thyme*, and *Wild thyme*.

It is excellent against nervous disorders. An infusion of it made, and drank in the manner of tea, is pleasant; and is an excellent remedy for head-achs and giddiness, and other disorders of that kind. It certainly cures that troublesome disease the nightmare. A gentleman afflicted terribly with that complaint took a strong infusion of this by way of remedy, and was free many years. Afterwards the disorder returned, but always gave way to the same remedy.

The flowers of the common mother of thyme are sometimes larger, and sometimes smaller. Hence some authors have divided the plant into two species; but I have often seen both in the same spot of ground, where they have plainly risen from the same seed.

2. Broad-leaved Mother of Thyme.

Serpyllum foliis latioribus. *N. 50. 9*

The root is long, slender, and hard, and has many very small fibres.

The stalks are numerous, tolerably upright, of a woody hardness, and of a brown colour.

The leaves stand in pairs; and they are oblong and broad, obtuse at the ends, and of a deep dusky green.

The flowers stand in longish tufts at the tops of the stalks; and are large, and of a faint red, often white.

Four seeds follow each; and they are roundish, very small, of a deep brown, and glossy.

The plant is larger, and grows more erect than the common mother of thyme.

C. Bauhine calls it *Serpyllum vulgare majus*. Others, *Serpyllum latifolium*.

It is common in our southern counties, and flowers in June.

3. Lemon Thyme.

Serpyllum folio longiore citratum. *N. 50. 10*

The root is long, thick, divided, and furnished with many fibres.

The stalks are numerous, round, firm, branched, of a pale green, and five or six inches long, partly procumbent, and partly raised upright.

The leaves are oblong and broad, sharp-pointed, and of a pale green.

The flowers stand at the tops of the stalks and branches; and they are of a pale red.

The seeds are small, and brown.

The whole plant has a very agreeable smell, an aromack with a citron, or lemon-flavour.

We have it wild in our southern counties, and it is cultivated in our gardens; but there is no difference except in size. It flowers in June.

C. Bauhine calls it *Serpyllum foliis citri odore*. Others, *Serpyllum citratum*, and *Thymus citri odore*.

4. Narrow-leaved smooth Mother of Thyme.

Serpyllum angustifolium glabrum.

The root is long and slender, and has a few fibres.

The stalks are weak, trailing, brown, branched, and eight inches long.

The leaves are longish, narrow, smooth, and of a deep green.

The flowers are numerous, and of a faint red.

The seeds are larger than in most of the preceding kinds, and of a purplish brown.

It is found on heaths in Kent and Sussex, and flowers in June.

C. Bauhine calls it *Serpyllum angustifolium glabrum*.

5. Hairy Mother of Thyme.

Serpyllum hirsutum folio oblongo obtusiore.

The root is long, slender, and brown.

The stalks are very numerous, weak, and trailing: they are of a purplish colour, and very much branched.

The leaves are oblong, tolerably broad, and obtuse: they are of a pale green, and hairy.

The flowers are small: they stand at the tops of the stalks in little hairy heads; and are naturally of a faint red, but often white.

The seeds are small and blackish.

We have it on the heaths in Surry. It flowers in July.

Ray calls it *Serpyllum vulgare hirsutum*.

6. Broad-leaved great Mother of Thyme.

Serpyllum latifolium fruticosius.

The root is large and spreading.

The stalks are thick, round, upright, very much branched, and six or eight inches high: they spread themselves out into tufts, which have a shrubby aspect.

The leaves are broad and short, of a deep green, and hairy.

The flowers are large, and of a faint purple; and the seeds are very minute, roundish, and black.

We have it on the Welch mountains. It flowers in August.

C. Bauhine calls it *Serpyllum latifolium hirsutum*.

7. Creeping

7. Creeping scentless Mother of Thyme.

Serpyllum repens inodorum.

The root is small and thready.

The shoots that grow first from it lie upon the ground, and take root in different places.

The stalks which rise from these are weak, slender, purple, and often branched.

The leaves are oblong, narrow, hairy, and of

a dusky green: they have nothing of that spicy smell so prevalent in the others.

The flowers are small, and of a faint purple: they stand in clusters at the tops of the stalks.

The seeds are small and blackish.

It is a native of Ireland, and flowers in June.

Ray calls it *Serpyllum hirsutum repens minus inodorum*.

DIVISION II. FOREIGN SPECIES.

Garden-Thyme:

Thymum vulgare. *N. 50. 11*

The root is composed of innumerable fibres.

The stalks are numerous, hard, woody, brown, very much branched, and ten inches high.

The leaves are short, broad, pointed, and of a dusky green.

The flowers are small, very numerous, and of a pale red.

The seeds are little, roundish, brown, and glossy.

It is a native of Italy; but we have it for the service of the kitchen in every garden. It flowers in June.

C. Bauhine calls it *Thymum vulgare*. Others, *Thymum durius*.

It is a good aromack, strengthens the stomach, disperses flatulences, and does service in nervous complaints. The best way of taking it is in infusion. If it were not so common at our tables, it would be more regarded as a medicine.

G E N U S II.

M I N T.

M E N T H A.

THE flower is composed of a single petal, tubular at the bottom, and divided at the edge into four parts; the upper segment of which is broader than the others, and nipped at the end. The cup is formed of a single piece, divided into five slight segments at the edge, and it remains as a covering for the seeds; which are four in number, and small.

Linnaeus places this among the *didynamia gymnospermia*; two of the four threads in the flower being longer than the others, and the seeds standing in the cup naked. This author joins very improperly under the same name *pennyroyal*; a plant of a genus perfectly distinct.

DIVISION I. BRITISH SPECIES.

1. Hairy verticillate Water-Mint.

Mentha aquatica hirsuta verticillata. *N. 50. 12*

The root is small, slender, and creeping.

The stalks are numerous and branched: they are a foot long, but not very upright; and they are square, of a pale green, and lightly hairy.

The leaves have short, hairy footstalks: they are oblong, moderately broad, and dented at the edges. Their colour is a faint green.

The flowers stand at the joints in clusters, surrounding the stalk; they are small, and of a pale red.

The seeds are minute and brown.

It is common about waters, and often gets into corn-fields. It flowers in April, and continues to August.

C. Bauhine calls it *Calamintha arvensis verticillata*. Others, *Mentha arvensis verticillata hirsuta*.

2. Smooth verticillate Water-Mint.

Mentha aquatica verticillata glabra:

The root is fibrous.

The stalks lie upon the ground: they are

square, weak, smooth, purplish, and six or eight inches long, but rarely branched.

The leaves have short footstalks: they are small, oblong, smooth, dented at the edges, and sharp-pointed. Their natural colour is a dusky green; but they are often red.

The flowers are small, and of a faint purple: they grow at the joints in clusters, surrounding the stalk.

It is found in our midland counties by the sides of brooks, and flowers in August.

Lobel calls it *Calamintha aquatica Belgarum et Mattioli*. Others, *Mentha aquatica exigua verticillata*.

3. Round-leaved aromack Mint.

Mentha aromatica folio rotundiore.

The root is composed of numerous, long, and slender fibres.

The stalks are weak, square, partly procumbent, and partly upright; of a purplish colour, and a foot or more in height.

The leaves have very short footstalks: they are broad, short, roundish, sharp-pointed, and sharply ferrated about the edges.

The flowers surround the stalks at the joints in little clusters: they are moderately large, and of a deep purple.

The whole plant has a very fragrant smell. It is common in the isle of Ely. It flowers in July.

Ray calls it *Mentha arvensis verticillata folio rotundiore odore aromatico*.

4. Curled Mint.

Mentha crispa verticillata. Pl. Sc. 12

The root creeps under the surface, and spreads abundantly.

The stalks are numerous, square, and of a purplish colour: they are a foot and half in length; but they lie in a great measure upon the ground; and they are not much branched, but have many shoots from the bosoms of the leaves.

The leaves are oblong, broad, and of a pale green: they are not at all hairy; but they are often wrinkled, and sometimes curled at the edges.

The flowers surround the stalks at the joints; and they are small and purple.

It is common wild about waters; and at one time was frequent in gardens, but the *spear-mint* has there taken its place. It flowers in July.

C. Bauhine calls it *Mentha crispa verticillata*. Others, from the common redness of its stalk, *Mentha sativa rubra*.

5. Common red Mint.

Mentha rubra vulgaris.

The root is long, slender, and creeping.

The stalk is firm, upright, square, and two feet high.

The leaves are oblong, narrow, serrated at the edges, and sharp-pointed: they have short footstalks; and they are of a pale green, but they often grow red.

The flowers stand in small circular tufts round the stalks at the places where the upper leaves grow; and they are of a pale red.

This is one of those *mint*s we have wild in our watery places, and used to cultivate; but the *spear-mint* has rendered it neglected.

C. Bauhine calls it *Mentha hortensis verticillata acymi odore*. Others, *Mentha cardiaca*, and *Mentha fusca*.

6. Water-Mint. Pl. Sc. 13

Mentha aquatica folio brevi lato.

The root is composed of a multitude of slender fibres, which penetrate deep, and spread every way.

The stalk is square, upright, not much branched, but full of young shoots from the leaves; and it is two feet or more in height, very upright, and of a robust aspect.

The leaves are broad and short: they have moderately long footstalks; and they are largest at the base, sharp-pointed, and sharply serrated at the edges. Their colour is naturally a deep pleasant green; but they frequently grow redish.

The flowers are moderately large, and of a pale red: they are placed in large, round heads upon the tops of the stalks.

It is common about waters, and flowers in June.

The whole plant has a strong smell, and an acrid taste, in some degree approaching to that of *pepper-mint*.

C. Bauhine calls it *Mentha rotundifolia palustris seu aquatica major*. Others, *Mentha aquatica*, and *Sisymbrium*.

7. Hairy Water-Mint.

Mentha aquatica folio brevi hirsuto.

The root is composed of fibres, and sends out creeping shoots every way to a great distance.

The stalk is square, upright, hairy, of a brownish or redish colour, and about a foot and half high.

The leaves are broad, short, and roundish; but they have a long, sharp point.

The flowers are small, and of a very pale purple; and they are placed in thick, roundish clusters at the tops of the stalks and branches.

It is all over covered with a short, light hairiness, of a greyish colour.

We have it common about standing waters, and it flowers in July.

J. Bauhine calls it *Mentha aquatica sive Sisymbrium hirsutum*. Others, *Sisymbrium hirsutum*, and *Sisymbria mentha*.

Its taste is acrid, but disagreeable.

8. Small-leaved hairy Water-Mint.

Mentha aquatica hirsuta foliis minoribus. Pl. Sc. 14

The root is slender and creeping.

The stalk is square, firm, upright, redish, and a foot and half high.

The leaves have short footstalks: they are smaller than in the preceding species, of a pale green, and hairy: they are deeply and sharply serrated at the edges, and sharp-pointed.

The flowers are large, and of a beautiful flesh-colour: they stand in small, round clusters upon the tops of the branches.

The whole plant has a very fragrant smell, somewhat resembling that of a fine Seville orange.

It is common about waters in Cambridgeshire, and some other places. It flowers in August.

Ray calls it *Mentha sisymbrium dicta hirsuta glomerulis ac foliis minoribus & rotundioribus*.

9. Rough-leaved spiked Mint.

Mentha spicata folio rugosiore.

The root is slender and creeping.

The stalk is square, robust, upright, of a purplish colour, two feet high, and not much branched.

The leaves have short footstalks: they are long, narrow, sharp-pointed, and sharply serrated along the edges: their surface is rough, and their colour a deep dusky green.

The flowers stand at the tops of the stalks and branches in long, slender spikes: they are small, and of a faint purple.

It is not uncommon about waters in Kent, and some other counties. It flowers in August.

Ray calls it *Mentha angustifolia spicata glabra folio rugosiore odore graviore*.

10. Broad-

10. Broad-spiked Mint.

Mentha spica latiore foliis glabris.

The root is small and creeping.

The stalk is firm, square, erect, brown, not much branched, and a foot and half high.

The leaves have short footstalks: they are oblong, smooth, moderately indented, and sharp-pointed.

The flowers grow at the tops of the stalks and branches in long, large, and hairy spikes, which are of a flattened figure: they are of a pale flesh-colour.

It is found in wet places in Essex, and flowers in July.

Ray calls it *Mentha spicata angustifolia glabra spica latiore*.

11. Broad-leaved spiked Mint.

Mentha latifolia spicata.

The root is composed of innumerable fibres.

The stalk is upright, branched, square, smooth, a pale green, but often red toward the bottom, and half a yard high.

The leaves stand on short footstalks: they are oblong, broad, of a fresh and beautiful green, and sharp-pointed.

The flowers stand in long and moderately thick spikes, and are of a deep purple.

We have it in Essex, and in Surry. It flowers in July.

Ray calls it *Mentha spicata glabra latiore folio*.

12. Broad, whitish leaved Horse-Mint, with a thick spike.

Mentha foliis cinereis latioribus, spica crassa.

The root is composed of numerous thick fibres. The stalk is square, weak, whitish, and branched, and is about a foot high.

The leaves are oblong, broad, and of a greyish green, sharp-pointed, and deeply serrated.

The flowers are of a deep flesh-colour: they grow in thick, long spikes at the tops of the stalks and branches.

It is common by river-sides in Essex, and flowers in July.

C. Bauhine calls it *Mentha palustris oblongo folio*. Others, *Menthastrum hirsutum*, and *Menthastrum minus*.

13. Long-leaved spiked Horse Mint.

Mentha floribus pallidis folio longo candicante. Pl. Sc. 15

The root is long and creeping.

The stalk is square, firm, whitish, and very upright: it is two feet and a half high, and has numerous shoots from the bosoms of the leaves, all which soon run up to flower.

The leaves are long, and moderately broad: they have no footstalks: they are sharply serrated, and pointed; and their colour is a greyish green on the upper side, and a whitish underneath.

The flowers stand at the tops of all the branches, and are very numerous: they are disposed in long, slender spikes, and are of a pale whitish colour.

It is found in many parts of Essex in great abundance, and is not scarce in many other places. It flowers in August.

J. Bauhine calls it *Menthastrum spicatum folio longiore candicante*. C. Bauhine, *Mentha sylvestris folio longiore*.

The smell is strong and disagreeable.

14. Round-leaved Horse-Mint.

Mentha folio rugoso rotundiore.

The root is composed of numerous fibres.

The stalk is square, upright, and two feet high.

The leaves are of a singular form for a plant of this kind, round, large, of a rough surface, and of a deep green.

The flowers stand in spikes at the tops of the stalks; and they are of a bright red.

It is found in some parts of Essex; but is not common. It flowers in July.

C. Bauhine calls it *Mentha sylvestris rotundiore folio*. Others, *Menthastrum folio rugoso rotundiore*.

This has a coarse, strong smell, like the preceding, and shares the virtues of an antihysterick with it: they are good also in all nervous disorders.

15. Pepper-Mint.

Mentha piperata. Pl. Sc. 16

The root is long, slender, and creeping, and sends out at distances clusters of thick fibres.

The stalk is upright, firm, not much branched, and two feet and a half high: it is square, and is usually of a brownish red toward the bottom, and green near the top.

The leaves are placed in pairs on short footstalks: they are large, oblong, sharp-pointed, and serrated at the edges: their colour is a deep green, and they taste extremely acrid.

The flowers grow at the tops of the stalks and branches in thick, short spikes: they are of a pale red, and moderately large.

It is found wild in Hertfordshire, Essex, and Surry; and we have it plentifully in gardens.

Ray calls it *Mentha spicis brevibus & latioribus foliis menthae fuscae sapore feruido piperis*.

DIVISION II. FOREIGN SPECIES.

1. Common Spear Mint.

Mentha spicata vulgaris. Pl. Sc. 17

This plant, though so common in our gardens, is not a native of our country.

The root is small and spreading.

The stalk is square, firm, upright, and two feet high.

feet or more in height, not much branched, and in colour of a pale green.

The leaves have no footstalks: they are long, narrow, and sharp-pointed, sharply serrated at the edges, somewhat rough on the surface, and of a lively green.

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The flowers are numerous, small, and of a bright red: they are placed at the tops of the stalks in long, slender spikes. The taste is very pleasant, warm, and aromatick.

It is a native of Germany, but is for the service of the table and of medicine kept in every garden.

C. Bauhine calls it *Mentha Romana*. Others, *Mentha angustifolia spicata*. Our people, *Spear-mint*, and *Roman mint*.

2. Danish curled Mint.

Mentha crispa Danica. *Pl. Sc. 100*

The root creeps under the surface, and has numerous, thick fibres.

The stalk is firm, upright, square, of a pale green, not much branched, and two feet high.

The leaves have no footstalks: they are large, oblong, broad, and very beautiful: they are indented, and curled at the edges; and their colour is a fresh, fine green.

The flowers are large and flesh-coloured: they stand in thick and short spikes at the tops of the stalks and branches.

GENUS III.

PENNYROYAL.

PULEGIIUM.

THE flower is formed of a single petal, a little longer than the cup; and is divided into two lips; the upper one is broad, and undivided at the tip; the under one is divided into three small segments, and there is a short tubular bottom. The cup is formed of a single piece, divided into five segments at the rim; and it remains after the flower. The seeds are four, and naked, having no covering but the cup. The flowers grow in thick clusters surrounding the stalk; and the whole plant has a piercing smell.

Linnaeus places this among the *didynamia gymnospermia*; the threads in the flower being two longer and two shorter, and the seeds having no capsule, but remaining naked in the cup. But he joins it with mint, denying it to be a separate genus. The distinction is indeed minute; but it is certain and unavoidable: and it is useful. *Pennyroyal* has always been called by a distinct name: it has great virtues, which are recorded of it under its proper and distinct title in the ancient authors, and which are not those of mint. It is fit therefore that we retain the name, and preserve the genus as distinct; there being foundation for it also in the characters of the flower.

DIVISION I. BRITISH SPECIES.

1. Common Pennyroyal.

Pulegium vulgare. *Pl. Sc. 1*

The root is fibrous and creeping.

The stalks are numerous, weak, and of a pale green: some lie upon the ground, others rise irregularly up; and they are very much branched: they are square; but the angles are so much obliterated in many parts, that they appear round.

The leaves stand two at a joint; and they are small, of an oval figure, and of a pleasant green: they are rounded at the end, and a little indented at the edges.

The flowers are small, and of a pale red; but they grow so thick together, that they are conspicuous upon the plant: they surround the stalk at the joints, where the leaves grow in great circles.

The seeds are inconsiderable and brown.

It is common wild in damp ground, and is

It is a native of Denmark; but its beauty has obtained it a place in our gardens. It flowers in August.

Clusius calls it *Mentha latifolia crispa Danica*.

The *mint*s in general possess the same qualities: they are stomachick and deobstruent; but there are also particular qualities in some of the species. We have mentioned the two *horse-mints* as eminent in nervous cases; and the *pepper-mint*, by its warmth, is of great service against cholicks.

The common *spear-mint* is superior to all the other kinds as a stomachick. Its distilled water possesses this quality in a very eminent and useful degree. The dried leaves also are used in powder, and the fresh tops made into tea.

The juice of the tops of *spear-mint*, given half a spoonful at a time, with a little sugar, will stop vomitings. The distilled water is good against the sicknesses and gripings to which infants are liable. It is also excellent at table, not only for its agreeable flavour, but its virtues. Our ancestors were wise who mixed it with beans and pease, for it prevents the flatulencies rising from such foods.

brought thence into gardens. It flowers in June.

C. Bauhine calls it *Pulegium latifolium*. Others, *Pulegium vulgare*.

It is a plant of a very great and very well known virtue.

It is excellent against obstructions of the menfes; and may be taken for that purpose in the distilled water, in form of the juice pressed fresh from the plant, or in infusion.

It is also useful in all obstructions of the viscera, and against cholicks and sicknesses of the stomach. A conserve of the tops of *pennyroyal* acts as a diuretick, and has done great service in the gravel. It is also good in jaundice.

Mr. Boyle has left an account of its virtues against the chinough: this is worth trying. The method of giving it is in the expressed juice, sweetened with sugar-candy, a spoonful for a dose.

DIVI-

DIVISION II. FOREIGN SPECIES.

1. Narrow-leaved Pennyroyal.

Pulegium angustifolium.

The root is composed of numerous fibres, long, slender, crooked, and whitish.

The stalk is firm, upright, not much branched, and a foot high.

The leaves are placed in pairs; but they have usually taste of young ones in their bosoms: they are longish, narrow, of a pale green, a little indented, and sharp-pointed.

The flowers grow in clusters at the joints; and they are small, and of a very faint bluish, often white.

The seeds are small and blackish.

It is a native of the warmer parts of Europe, and flowers in June.

C. Bauhine calls it *Pulegium angustifolium*. Others, *Pulegium cervinum*, *Harts pennyroyal*.

Its virtues are the same with the others.

GENUS IV.

WATER HOARHOUND.

Lycopus.

THE flower is made of a single petal; which is tubular at the bottom, and divided into four parts at the edge, which form a kind of lips: the upper one consists of a single segment, which is broader than the others, and nipped at the end; the other three segments form the lower lip; and of these the middle one is smaller than the rest. The tubular part of the flower is of the same length with the cup; which is also formed of a single piece; but it is divided into five segments at the rim, which are narrow and sharp-pointed. The seeds are four; and they stand naked in the cup.

Linnaeus separates this and some others from the rest of the verticillate plants. They stand among his *didynamia*; this is one of his *diandria monogynia*; the threads in the flower being only two, and the style from the rudiment of the fruit single. It is certain, that there are, as this author observes, only two threads or filaments in the flower of *lycopus*, and there are four in that of *pennyroyal*. But this is a slight mark of distinction. The form and structure of the flower and of its cup, and the disposition of its seeds, agree with those of the other. This is a plain, familiar instance of that author's unnatural arrangement of plants: these are both in every one's way to examine; and from these I appeal to those who yet are inclined to own his system, whether *pennyroyal* and *water hoarhound* do not evidently belong to the same class, though he has separated them into two very remote ones in his works. Every class affords many like instances.

DIVISION I. BRITISH SPECIES.

Common Water Hoarhound.

Lycopus vulgaris. *Pl. Sc. 20*

The root is composed of a multitude of long, white fibres, joined to a small head.

The stalk is square, firm, upright, hollow, and two feet high: it is of a pale green, and is rarely branched.

The leaves are placed in pairs; and they have short footstalks: they are large, broad, oblong, and pointed at the ends: they are very sharply serrated at the edges, and sinuated deeply near

the base; and their colour is a strong and lively green.

The flowers are small and white: they stand in clusters round the stalks at the joints, where the leaves rise.

The seeds are small and brown.

It is common by ditch-sides, and flowers in July.

C. Bauhine calls it *Marrubium palustre glabrum*. Others, *Marrubium aquaticum*.

It is destitute of taste and smell, and, so far as we know, of virtue.

DIVISION II. FOREIGN SPECIES.

Narrow-leaved Virginian Lycopus.

Lycopus foliis tenuis serratis.

The root is fibrous and spreading.

The stalks are numerous, square, upright, not much branched, and a foot or more in height.

The leaves are placed in pairs, and are of a faint green: they are broad at the base, narrower

to the point, and very elegantly serrated at the edges.

The flowers are small and whitish: the seeds are oblong and brown.

It is frequent in the wet grounds in North America, and flowers in June.

Gronovius calls it *Lycopus foliis lanceolatis tenuissimis serratis*.

GENUS

G E N U S V.

V E R V A I N.

V E R B E N A.

THE flower is formed of a single petal: it is tubular at the lower part, and toward the upper is bent or crooked; from this part it spreads into a kind of gaping mouth; and is divided into five segments, which form two irregular lips. The several segments are short, rounded, and nearly equal in length; and there is less of the labiated form than in most others of this class. The cup is tubular and angulated: it is formed of a single piece, divided into five segments at the rim; and one of these is shorter than the rest. The seeds stand naked in the cup; and they are oblong and brown.

Linnaeus places this among the *diandria monogynia*; the threads in the flower being two, and the style single.

By this arrangement he joins it in the same class with the *lycopus*, and separates it far from the other verticillate plants.

DIVISION I. BRITISH SPECIES.

Common Vervain.

Verbena vulgaris. *Pl. 51. 3.*

The root is composed of many thick, short fibres, connected to a small oblong head.

The stalk is firm, upright, and very tough: its colour is a brownish green, often red towards the base; and it is edged and angulated.

The leaves stand in pairs: they are oblong, moderately broad, and deeply sinuated and indented: the indentings are rounded, and the end of the leaf is obtuse.

The flowers are small, and of a pale, faint colour, white, with a tinge of bluish or purplish; and they stand in long, slender spikes at the tops of the stalks and branches.

The seeds are oblong, small, and brown.

It is common by path-ways, and flowers in June.

C. Bauhine calls it *Verbena communis carulea flore*. Others, *Verbena vulgaris*, and *Herba sacra*.

It is a plant of great virtue, though under a general neglect: it is good against disorders of the nerves; and is superior to most things in the cure of inveterate headachs. For this purpose the tops should be dried and powdered, and taken for a considerable time, twenty grains as a dose.

The juice boiled to a syrup with honey is excellent against coughs.

The infusion, in manner of tea, is good against obstructions of the viscera, and particularly of the spleen.

DIVISION II. FOREIGN SPECIES.

1. Fine-leaved Vervain.

Verbena tenuifolia.

The root is fibrous.

The stalks are numerous, weak, and in great part procumbent: they are of a pale green, and angulated.

The leaves are placed in pairs; and they are oblong, moderately broad, and very beautifully divided: they are first cut in a pinnated manner; and these segments are again divided pretty deeply. Their colour is a brownish green.

The flowers are small, and placed in single, long, and very slender spikes.

It is a native of Spain, and other warm parts of Europe. It flowers in July.

C. Bauhine calls it *Verbena tenuifolia*; a name copied by most others.

This plant is an instance of the extreme folly of placing the verticillate plants in distinct classes from the slight differences in the filaments of the flower.

Linnaeus separates *vervain* from the rest of them; because it has only two threads in the flower;

whereas they have in general four; but this species of *vervain* has four threads. That author calls it *Verbena tetrandra*; a contradiction in the most express words to his classical character wherein *vervain* stands, that being *diandria*.

2. Great-flowered American Vervain.

Verbena flore violaceo majore. *Pl. 51. 4.*

The root is long, whitish, and full of fibres: The stalk is firm, upright, and of a pale green toward the top, and at the bottom purplish.

The leaves are of an oval shape, dented at the edges, and of a fine bright green.

The flowers are very numerous and beautiful: they terminate the stalks in long spikes, with leaves among them; and they are of the shape of cowslips, but of the colour of the violet, a fine deep blue purple.

The seeds are long and slender.

It is frequent in many parts of North America, and flowers in July.

Plukenet calls it *Verbena orubica tenuifolia*.

GENUS

G E N U S VI.

WILD MARJORAM.

ORIGANUM.

THE flower is formed of a single petal: it is tubular, and compressed at the bottom, and at the opening is divided into two lips: the upper lip is undivided, plain, and lightly sinuated at the end: the lower lip is split into three parts, nearly equal in bigness. Numbers of the flowers are placed together in a kind of scaly head, serving as a general cup. The seeds are naked, and four follow every flower.

Linnaeus places this among the *didynamia gymnospermia*; the flower having four threads, two of which are longer than the others, and the seeds standing naked in the cup. He joins some other plants with it, which we have treated distinctly in their places, reserving the proper *origanums* to this.

DIVISION I. BRITISH SPECIES.

1. Common Wild Marjoram.

Origanum vulgare. *Pl. 51. 5.*

The root is composed of a great many long, slender, naked fibres.

The stalk is firm, upright, and of a very regular growth: it is not branched; but toward the top sends out some shoots in a handsome manner to sustain the flowers: it is usually of a brownish colour.

The leaves are placed in pairs, and have very short footstalks: they are short, broad, nearly of an oval figure, undivided at the edges, and of a brownish green.

The flowers are small, and of a pale red: they grow in tufts and clusters from certain leafy heads; and they also are purplish.

The seeds are small and brown.

It is common in dry, hilly pastures, and by road-sides in such situations. It flowers in July.

C. Bauhine calls it *Origanum sylvestre cunila bubula* Plinii. Others, *Majorana sylvestris*, and *Origanum vulgare*.

It is an excellent medicine in nervous cases: it is warm, cordial, and aromatick. The leaves and tops, dried and powdered, are good against

headachs. The tops of the plant made into a conserve are good against flatulencies and disorders of the stomach and bowels. The whole plant given in infusion is excellent against obstructions of the viscera, and in the jaundice.

2. Pot Marjoram.

Origanum onites. *Pl. 51. 6.*

The root is fibrous; and its fibres are long, slender, very numerous, and brown.

The stalks are numerous and robust: they are square, of a brown colour, moderately branched, and a foot and half high.

The leaves are oblong, broad, and of a brownish green: they have short footstalks; and they stand in pairs.

The flowers stand in clusters at the tops of the branches, and are of a pale red.

It is a native of England, and other parts of Europe, and flowers in July.

We take it into gardens for the service of the kitchen: it is a warm, wholesome plant, good against flatulencies and indigestions.

C. Bauhine calls it *Origanum onites*; a name copied by most of the other writers. Some call it *Majorana major Anglica*.

DIVISION II. FOREIGN SPECIES.

Long-spiked Origanum.

Origanum capitulis longioribus. *Pl. 51. 7.*

The root is fibrous, and brown.

The stalk is firm, upright, square, and a foot and half high.

The leaves are oblong, and of a dusky green: they stand in pairs, and they are not at all indented at the edges, and their points are obtuse.

The flowers stand at the tops of the stalks and

branches in long, slender spikes: they are small, and of a very faint reddish colour.

The seeds are brown and longish.

It is a native of the East, and flowers in July.

C. Bauhine calls it *Origanum Heracleoticum cunila gallinacea* Plinii.

Its taste is extremely hot; and its virtues are the same with the former.

G E N U S VII.

S E E B R I G H T.

S C L A R E A.

THE flower is formed of a single petal: it is tubular, and compressed in the lower part, and gapes at the edge, where it is divided into two lips. The upper lip is long, flatted, and crooked: the lower lip is larger, and is divided into three segments: the middle one of these is broader than the

the others, and is nipped at the end; and so is the upper lip. The cup is tubular and striated, formed of a single piece, and at the top compressed, and divided into two lips, in the same manner as the flower. The upper lip of the cup has three, and the lower has two points. The seeds stand naked in the cup, whose top shuts over them. The flowers stand in clusters round the stalk; and there are no leaves under them.

Linnaeus places this among the *diandria monogynia*; the threads in the flower being two, and the style single.

This author joins it with *sage*, not allowing it to be a distinct genus; but the naked disposition of the flower is a sufficient generic distinction. The common writers confound it with *clary*, *horminum*; from which it differs as essentially, as we shall shew under the succeeding head.

Of this genus there is but one known species, and that is a native of Britain.

Wild Seebright.

Scalaria pratensis. *PLS. 1. 0*

The root is composed of numerous, large fibres, connected to an oval head.

The first leaves are very large, and of a greyish green: they are placed on short footstalks; and are broad at the base, smaller to the point, and irregularly indented at the edges.

The stalk is robust, upright, branched, and two foot and a half high: it is brown, and a little hairy.

The leaves stand in pairs on it; and they have scarce any footstalks: they are large, oblong, rough, and irregularly indented at the edges.

The flowers stand at the tops of the stalks and branches in long spikes: they are placed on these in circular tufts at distances; and there are at the utmost only some imperfect rudiments of leaves

under them: they are very large, and of a beautiful bluish purple.

The seeds are small and brown.

It is found in damp places, but is not common. It flowers in July.

C. Bauhine calls it *Horminum pratense foliis serratis*. Others, *Scalaria pratensis*, and *Scalaria sylvestris*.

The seeds of this plant put into the eye, bring away any little foulnesses with them. The practice is antient; but the manner of its effect is little understood. As soon as the seed is put in, the warmth and moisture of the eye operating upon its own substance, cover it with a thick and tough mucilage: as it continues moving in the eye, this entangles the little substances which had got in by accident, and occasioned the pain; and brings them out with it.

GENUS VIII.

CLARY.

HORMINUM.

THE flower is large, and labiated: it is formed of a single petal, which is tubular, and compressed in the lower part, and divided in a gaping manner at the top. The upper lip is long, large, and crooked; the lower lip is divided into three segments, the middle one of which is again divided into three parts. The cup is formed of a single piece, and is also divided into two lips: it is tubular, and angulated; and one of the lips has two, the other three points. The flowers stand in tufts about the tops of the stalks with a particular kind of coloured leaves about them; and at the top there usually are some of these leaves in clusters, without any flowers among them. The seeds are placed naked in the bottom of the cup.

Linnaeus joins this genus and *sage* together, abolishing the received name *horminum*: but the distinction is sufficient, as we shall shew when treating of *sage* among those verticillate plants of which no species are native of England. He places this genus among the *diandria monogynia*; the threads being, as that term expresses, two in each flower, and the style single. He makes the essential character consist in the two threads being split or forked; and as this is their form in the *clary* as well as *sage*, he for that reason joins those plants under one name. But in the eye of Reason this is a poor occasion of uniting plants so obviously different as those: and the more curious enquirer into the structure of flowers will tell him, that there are such variations in the formation of this internal part of the flower in some of these plants, which in his species he allows to be *salvia*, as will either remove those species out of this genus, or this genus out of the class.

DIVISION I. BRITISH SPECIES.

1. Broad-leaved Wild Clary.

Horminum sylvestre vulgare. *PLS. 1. 9*

The root is long, slender, and furnished with numerous fibres.

The first leaves are large, rough, and of a dusky green: they are oblong, irregularly divided at the edges, and rise but a little from the ground.

The stalk grows up in the centre; and is square, firm, and two feet high: its colour is brown, and it is not much branched.

The leaves stand in pairs, and have scarce any footstalks: they are rough, and of a greyish green, and are irregularly waved and indented.

The flowers stand at the tops of the stalks in long spikes, which usually bend or droop a little: they are small, and of a very fine blue.

The

The seeds are black.

It is common in waste places, and flowers in August.

C. Bauhine calls it *Horminum sylvestre laevendula flore*.

It possesses the virtues of the *garden-clary*; but in an inferior degree; for which reason it is not regarded in medicine.

DIVISION II. FOREIGN SPECIES.

Garden-Clary.

Horminum hortense. *PLS. 1. 10*

The root is long, thick, brown, and hung with a few straggling fibres. The colour is brown, and the taste warm, and not disagreeable.

The leaves that rise from it are very large, of a whitish green, and rough: they are broadest at the base; whence they grow smaller to the end, where they terminate obtusely; and they are slightly waved at the edges.

The stalk is square, firm, upright, and a yard high. The leaves stand in pairs on it; and they are large, rough, and of a greyish green: they are placed on footstalks; and are broad, and a little waved at the edges.

The flowers stand at the tops of the stalks and branches in long, thick spikes; and they are very large, of a gaping figure, and of a pale blue colour. The cups in which they stand are glutinous to the touch.

The seeds are smooth, and of a dusky reddish brown, oblong, and of a glossy surface.

It is a native of the Greek islands, and is found wild also in Apulia. It flowers in July.

C. Bauhine calls it *Horminum sclarea didum*. Others, *Horminum hortense*, and *Horminum vulgare sativum*.

This plant is cordial, incisive, and deobstruent. It is good against flatulencies and indigestions, as also in nervous complaints, headaches, and lowness of spirits.

A conserve of the tops of this plant warms the stomach, and operates as a cordial. A distilled water of it has also the same effect; but it must be of the spirituous kind, for it does not fully give its virtues to water.

It has been a custom to add the leaves to wine in the making: they give it a cordial virtue, and not a disagreeable flavour.

GENUS IX.

HEDGENETTLE.

GALEOPSIS.

THE flower is formed of a single petal; which is tubular at the bottom, and divided in the labiated manner at the mouth. The tube is short, and between the upper and under lip there is a kind of palate, terminated each way by a little crooked tooth. The upper lip is large, hooked, and undivided: the lower lip is short, broad, and heart-fashioned, and it turns back. The cup is tubular, and at the top is terminated by five slender parts, resembling bristles. The seeds are four in number; and they remain naked.

Linnaeus places this among the *didynamia gymnospermia*; the threads in the flower being four, two of which are longer than the others, and the style single.

This author creates confusion by his distribution of these plants. He takes away the name of *galeopsis* from this, making it a species of *stachys*; and he uses the word *galeopsis*, antiently and distinctly given to this plant, as the name of another genus, including the *hempnettles*, and some other kinds; of which we shall speak hereafter.

DIVISION I. BRITISH SPECIES.

Hedgenettle.

1. *Galeopsis legitima*. *PLS. 1. 11*

The root is long, slender, and creeping: it is white, and sends out long fibres on every part, from which in separate places rise numerous plants.

The stalk is square, upright, hairy, and of a brownish green: it is a yard high, and is rarely much branched.

The leaves are placed in pairs: they stand at distances; and they have footstalks, which are green, and hairy. The leaves are very broad and short, heart-fashioned at the stalk, and pointed at the end: they are nicked a little at the edges, and their colour is a pale, greyish green. Their substance is rough, the veins are large, and they are hairy.

The flowers stand in loose spikes at the tops of the stalk; and are large, and of a beautiful

purple, agreeably diversified with dots of white.

The seeds are small and brown.

It is common in hedges and among bushes, and flowers in June and July.

C. Bauhine calls it *Lamium maximum sylvestre cum fatidum*. Others, *Galeopsis*, and *Galeopsis legitima Dioscoridis*.

It is a deobstruent: its principal virtue is against obstructions of the spleen; and the best method of taking it is the juice fresh pressed.

2. Small Hedge-nettle.

Galeopsis minor foliis angulatis.

The root is long and thick: it is furnished with many fibres, and sends out many creeping parts, which run under the surface, and send up plants in various places.

The

The stalk is square, upright, branched, and a foot and half high.

The leaves stand in pairs on short footstalks; and they are large and rough, of an angulated form, and pale green colour.

The flowers are moderately large, and of a bright purple.

The seeds are small and brown.

It is not uncommon in woods in our northern counties. It flowers in July.

Plukenet calls it *Lanum sylvaticum spicatum setidum folio anguloso minus*.

DIVISION II. FOREIGN SPECIES.

Hedgenettle with variegated flowers.

Galeopsis flore magno luteo variegato. *N.B. 118*

The root is composed of numerous, thick fibres.

The stalk is firm, upright, thick at the joints, and of a pale green.

The leaves stand in pairs, and have slender footstalks: they are oblong and broad, largest toward the middle, small at the base, and serrated at the edges. Their colour is a pale green; and they are highly ribbed.

The flowers are very large; and they stand in

tufts round the tops of the branches, and on the summits of them: they are yellow, but variegated on the lip with purple.

This however is an uncertain mark of the plant, for they are sometimes of a pale yellow throughout, and sometimes white.

The seeds are small and brown.

It is a native of the warmer parts of Europe, and flowers in August.

Plukenet calls it *Lanum cannabinum aculeatum flore specioso luteo labiis purpureis*.

GENUS X.

CATMINT.

NEPETA.

THE flower is formed of a single petal: it is tubular at the bottom, and crooked; and it gapes at the mouth, and consists there of two lips, and a palate. The upper lip is short, obtuse, and nipped at the top: the lower lip is undivided, and is larger than the other, and serrated. The palate is of a heart-like shape, and terminates in two little jaggs. The cup is tubular, and divided into five segments at the edge; the upper ones of which are longer than the others, and the lower ones spread. The seeds are four after every flower; and they stand naked in the cup.

Linnaeus places this among the *didynamia gymnospermia*; the flower having two longer and two shorter filaments, and the seeds being naked in the cup, without any capsule.

DIVISION I. BRITISH SPECIES.

Catmint.

Nepeta vulgaris. *N.B. 119*

The root is fibrous and spreading.

The stalks are square, firm, upright, branched, and two foot and a half high: they are of a whitish colour, and somewhat dusky.

The leaves stand in pairs, and have short footstalks: they are oblong and large, broad at the base, where they are somewhat indented, serrated sharply at the edges, and pointed at the end: their colour is a whitish green, and they have a very strong smell.

The flowers grow in great clusters at the tops

of the stalks, forming a kind of spike: they are small and white; but they have a few dots of purple within.

The seeds are small and dusky.

It is common by way-sides in dry places, and flowers in July.

C. Bauhine calls it *Mentha cattaria vulgaris* & *major*. Others, *Nepeta vulgaris*.

It is a very powerful deobstruent. An infusion of it is excellent in stoppages of the menses; and it is good also in nervous cases. The tops beat into a conserve are good against that troublesome and obstinate disorder called the *nightmare*.

DIVISION II. FOREIGN SPECIES.

Lesser Catmint.

Nepeta minor. *N.B. 114*

The root is long, thick, and hung with many fibres.

The stalks are numerous, square, upright, very much branched, and a foot and half high.

The leaves are placed in pairs, and have scarce any footstalks: they are oblong and narrow, sharp pointed, serrated at the edges, and of a pale green.

The flowers stand in a kind of irregular spikes at the tops of the stalks and branches; and are numerous, small, and white, with a faint tinge of purple.

The seeds are brown.

It is common in the warmer parts of Europe, and flowers in July.

C. Bauhine calls it *Mentha cattaria minor*.

GENUS XI.

WOOD-BETONY.

BETONICA.

THE flower is formed of a single petal: this is tubular, and crooked at the bottom, and gapes in a labiated manner at the top. The upper lip is small and undivided, and is placed erect; the lower lip is divided into three segments; of which the middle one is largest, and is nipped at the end. The cup is formed of a single piece; and is tubular, and dented in five places at the rim. The seeds are four after each flower, and they stand naked in the cup.

Linnaeus places this among the *didynamia gymnospermia*; two of the four filaments in the flower being longer than the others, and the seeds naked.

DIVISION I. BRITISH SPECIES.

Wood-Betony.

Betonica sylvestris vulgaris. *N.B. 125*

The root is brown and fibrous.

The first leaves are numerous, and of a dark green: each has its separate footstalk, which is long and slender; and they are supported tolerably upright. They are oblong, broad, indented, and obtuse; and they are a little hollowed where the stalk is inserted.

The stalks are numerous, square, upright, and a foot or more in height: there usually are placed on each stalk two pairs of leaves, one pair near the root, and the other at the top: those near the root resemble the first leaves, which rise singly; but the others are narrower.

The flowers grow at the tops of the stalks in an interrupted spike; and they are moderately large, and of a beautiful purple.

The seeds are small, oval, and brown.

It is common in our woods, and among bushes. It flowers in June.

C. Bauhine calls it *Betonica purpurea*. Others, *Betonica sylvestris*.

It is a celebrated medicine in cephalick cases. The dry tops powdered are good in inveterate headaches, and the same given in form of infusion against obstructions of the viscera. Some also take the leaves powdered in form of snuff for headaches; and others have them chopped small, and smoke them in the manner of tobacco.

DIVISION II. FOREIGN SPECIES.

Long-spiked Betony.

Betonica spica longiora.

The root is composed of many fibres, rising from a small head.

The first leaves are numerous, and supported on long, slender footstalks: they are oblong, narrow, dented at the edges, and pointed at the ends.

The stalk is upright, square, and brown.

The leaves on it are narrower than those from the root, and of a paler green.

The flowers stand at the top in a very long, slender spike; and are of a deep purple.

The seeds are large, oblong, and redish.

It is frequent in the warmer parts of Europe, and flowers in August.

C. Bauhine calls it *Betonica folia capitulo alopecuri*.

GENUS XII.

BASE HOARHOUND.

STACHYS.

THE flower is formed of a single petal, and is of the labiated kind. The tubular part at the bottom is short; and the mouth is oblong, and swelled out toward the base. The upper lip is of an oval figure, and of an arched shape: the lower lip is turned back; it is divided into three segments, the middle one of which is the largest. The cup is tubular, angulated, and divided at the edge into five parts. The seeds are oblong and angulated; four succeed each flower, and they stand naked in the cup.

Linnaeus places this among the *didynamia gymnospermia*; the flower having two threads longer than the others, and the seeds standing naked. He joins the *galeopsis*, as before observed, under this name; but they are really distinct.

Bafe Hoarhound.

Stachys vulgaris. 8651.19

The root is a tuft of thick, short, crooked, brown fibres.

The stalk is square, firm, and two feet high: it is not much branched, and it often droops at the top.

The leaves stand in pairs; and they are oblong, considerably broad, dented in a peculiar manner at the edges; so that the dents seem to

lie over one another; and of a whitish colour, and hoary.

The flowers surround the upper parts of the stalks in thick clusters; and are small and purple.

The seeds are oval, angulated, and brown.

We have it in dry grounds in our southern counties, but not frequent. It flowers in August.

C. Bauhine calls it *Stachys major Germanica*. Others, *Stachys Fuchsi*.

G E N U S XIII.

WILD BASIL.

A C I N O S.

THE flower is formed of a single petal, and is labiated. The tubular part is of the length of the cup, and the mouth is small. The upper lip is small, obtuse, nipped at the end, and placed erect: the lower lip is longer, and is divided into three segments; the middle one of which is the largest, and is nipped at the end. The cup is tubular at the base, and divided into two lips at the rim. The seeds are small and roundish, and four of them follow each flower.

Linnaeus arranges this among the *didynamia gymnospermia*; the flower having two longer and two shorter threads, and the seeds being naked.

He takes away the received name *acinos*, and joins it with *thyme*; but it is truly distinct, not only in the general form and aspect of the plant, whence the earlier writers were induced to give it a separate name, but even in the structure of the flower; the middle segment of the lower lip being larger and rounder in *acinos* than in *thyme*, and being always nipped or emarginated in this; whereas in *thyme* it is entire.

Our English name is an ill-constructed one. I have preserved it, because generally received; but it is better to use the other, *acinos*.

Wild Basil.

Acinos foliis oblongis dentatis. 8651.17

The root is long, slender, white, and furnished with a few fibres.

The stalks are numerous and weak: they lie in part upon the ground, and frequently send out fibres, and root as they trail: they are square, slender, and redish; and they are lightly hairy.

The leaves are small, oblong, hairy, and indented: they stand in pairs; and they have no footstalks.

The flowers are small, but they are not with-

out their beauty: they stand in little clusters in the bosoms of the leaves; and they are red; but they have a white spot in the middle of the under lip.

The seeds are very small and black.

It is common in our western counties, and flowers in August.

C. Bauhine calls it *Clinopodium arvense cymifolium*. Others, *Acinos*. J. Bauhine, *Acinos multis*.

It is an excellent medicine in nervous cases. A tea of it is not unpleasant, and will take great effect.

G E N U S XIV.

SELFHEAL.

P R U N E L L A.

THE flower is composed of a single petal, and is labiated. The tubular part, at the bottom, is short, and the opening is oblong. The upper lip is entire, and stands erect: the under lip is turned backwards, and is divided into three segments; the middle one of which is broader than the others, and is nipped at the end, and ferrated. The cup is formed of a single piece, and is in the same manner divided into two lips; and the seeds are four after each flower, and stand in the cup.

Linnaeus places this among the *didynamia gymnospermia*; the flower having four threads, of which two are longer than the others, and the seeds standing naked.

DIVISION I. BRITISH SPECIES.

Common Selfheal.

Prunella vulgaris. 8651.10

The root is composed of many fibres, connected to a small head.

The first leaves are numerous; and they are placed on slender footstalks: they are short, broad, obtuse, and sometimes a little waved at the edges.

The stalks are square, brownish, and eight inches

inches high: they are not much branched; and usually they lie in part upon the ground.

The leaves on these are placed in pairs at distances: they have slender footstalks: they are of the same form with those from the root; and their colour is a lively green.

The flowers stand in a kind of short, thick spikes at the tops of the stalks and branches; and they are small and usually blue, sometimes purplish, sometimes red, and sometimes white.

The seeds are small and blackish.

It is common by way sides, and flowers in July.

C. Bauhine calls it *Prunella major folio non diffeſto*. Others, *Prunella*, and *Prunella vulgaris*.

It is agglutinant and astringent. While wound-herbs were in esteem, this was one of the principal. A decoction of the whole plant is cooling and astringent, and is a good medicine in the piles. The juice cures inflammations in the mouth.

DIVISION II. FOREIGN SPECIES.

Jagged Prunella.

Prunella foliis laciniatis.

The root is long, and tolerably thick, and has many crooked fibres annexed to it.

The leaves are numerous, and supported on long footstalks: they are of a pale green; and they are deeply divided in two or more places down to the rib; so that they resemble in some degree a stag's horn.

The stalks are square, tolerably firm, upright, and a foot or more in height.

The leaves on these stand in pairs at distances:

the most usual number is only two pairs on each stalk, disposed as in the *betony*, one pair at a small distance from the ground, the other near the top: these resemble those from the root; but they are less.

The flowers stand in a small tuft at the top of the stalk, and are moderately large: they are sometimes of a pale red, but more usually white. The seeds are large and blackish.

It is frequent in pasture-grounds in the warmer parts of Europe. It flowers in June.

C. Bauhine calls it *Prunella folio laciniato*; a name others have copied.

G E N U S XV.

HOREHOUND.

M A R R U B I U M.

THE flower is formed of a single petal, and is of the labiated kind. The tubular part, at the base, is very short; and the opening at the mouth is long, and gaping. The upper lip is small, and lightly divided at the tip; and it stands upright: the lower lip is broader, and is divided into three segments; of which the middle one is largest; and this turns back. The cup is tubular, and spread at the mouth: there are ten indentings at the edge, alternately larger and smaller. Four oblong seeds follow every flower; and they are placed naked in the cup.

Linnaeus places this among the *didynamia gymnospermia*; the flower having four threads, two of which are longer than the others, and the seeds being naked.

DIVISION I. BRITISH SPECIES.

White Horehound.

Marrubium album vulgare. 8652.1

The root is composed of a vast many long, crooked, and entangled fibres, joined to a small head.

The stalks are numerous, upright, square, of a whitish colour, and a foot and half high.

The leaves are placed in pairs; and they are roundish, indented a little at the edges, of a firm substance, and of a whitish colour.

The flowers stand in thick clusters round the stalks at every joint where the leaves grow: they are small and white, and the cups in which they stand have a kind of hooked bristles at the tops of their several indentings.

When strictly examined, those flowers are found to grow from the bosoms of the leaves,

though they join round the stalk. The whole plant has a very strong smell.

It is found in dry pastures, and by road-sides in many parts of the kingdom, and flowers in June.

C. Bauhine calls it *Marrubium album vulgare*. Others only *Marrubium album*.

It is celebrated against disorders of the breast. The best way of giving it, is in form of a syrup made of the juice pressed from the leaves and tops, with honey. This is a form as old as Dioscorides; and the common method of boiling up a decoction of an herb with sugar, is not comparable to it on such occasions. This syrup of horehound is excellent against coughs, and soreness of the breast.

The leaves reduced to powder are said to destroy worms in the intestines; but for this we have not the same authority.

DIVISION II. FOREIGN SPECIES.

Spanish Horehound.

Marrubium album calycibus patentibus.

The root is long, thick, and furnished with many fibres.

The stalk is square, upright, and two feet high, very little branched, and of a whitish colour.

The leaves stand in pairs, and are of a whitish colour, and thick substance; they are roundish, and very lightly indented.

The flowers grow in the bosoms of all the upper leaves, and surround the stalks: they are small and white.

The cups are very wide at the mouth, and the prickles upon them are strait; not hooked, as in the common horehound.

It is not uncommon in Spain and Italy, and flowers in June.

Boccone calls it *Marrubium subrotundo folio*.

GENUS XVI.

MOTHERWORT.

CARDIACA.

THE flower is formed of a single petal, and is labiated. The tubular part is slender: the upper lip is long, and of an arched form, and rounded at the end; the lower lip is turned back, and is divided into three equal, or nearly equal segments. The cup is oblong, tubular, angulated, and formed of a single leaf. The seeds are four, and they stand naked in the cup.

Linnaeus places this among the *didynamia gymnospermia*, as the preceding; but he does not allow it to be a distinct genus. He joins it with the *leonurus*, and takes away its received and ancient name.

Motherwort.

Cardiaca. Pl. 52. 2

The root is composed of a multitude of thick, brown fibres.

The first leaves are placed on long footstalks; and they are large, broad, and short: they have three principal divisions, and their colour is a dark green.

The stalk is square, hollow, upright, branched, and a yard high.

The leaves on this are placed in pairs; and they are oblong, indented at the edges, and sharp-pointed.

The flowers are small, and have a purplish tinge: they grow in thick tufts at the joints.

The seeds are brown, and rounded on one side.

It is common in waste places, and flowers in July.

C. Bauhine calls it *Marrubium cardiaca distum*. Linnaeus, *Leonurus foliis caulinis trilobis lanceolatis*.

It is a good medicine in hysteric cafes. It promotes the menses, and is very useful against fits. The best way of giving it is in form of a conserve, made of the fresh tops. It may be also taken in way of tea; but that way it is unpleasant.

GENUS XVII.

TUFTED BASIL.

CLINOPODIUM.

THE flower is formed of a single petal, and is of the labiated kind. The tubular part is short, and it spreads out into a mouth: the upper lip stands erect, and is hollowed, obtuse at the end, and nipped in the middle: the lower lip is divided into three segments; and of these the middle one is largest. The cup of each flower is tubular, a little crooked, and divided into two lips: but, beside these, there is a kind of general cup or covering to the whole cluster of flowers growing together; and this is formed of a vast multitude of hairs. The seeds are four after every flower; and they stand naked in the cup.

Linnaeus places this among the *didynamia gymnospermia*; the flower having two longer and two shorter threads, and the seeds standing naked. Our English name is a very imperfect one; for which reason it is more proper to use the Latin, *clinopodium*.

Great Wild Basil.

Clinopodium majus. Pl. 52. 3

The root is fibrous, and runs a great way under the surface.

The first leaves are placed on slender footstalks; and they are roundish, obtuse, hairy, and of a pale green.

The stalks are square and weak: they are a foot or more in length, but scarce able to support

themselves: they are not much branched; and their colour is a pale green. The leaves are placed in pairs on the stalk; and they are short, broad, obtuse, and a little indented.

The flowers are of a pale red.

It is common under hedges, and flowers in August.

C. Bauhine calls it *Clinopodium origano simile*. Others, *Acinos*.

Its virtues are not known.

GENUS 7

GENUS XVIII.

DEADNETTLE.

LAMIUM.

THE flower is labiated, and is formed of a single petal. The tubular part at the base is very short: the opening of the mouth is wide, and is formed into two lips and a palate. The upper lip is of an arched form, and undivided, and turns in a kind of arch: the lower lip is shorter, and nipped at the end; and it turns back. The palate is inflated, compressed, and terminated each way by a little jag. The cup is tubular, and it is terminated by five bristles. The seeds are four after every flower; and they are naked in the cup.

Linnaeus places this among the *didynamia gymnospermia*; the flower having two threads longer than the other two, and seeds remaining naked in the cup without any capsule or particular covering.

DIVISION I. BRITISH SPECIES.

1. White Deadnettle.

Lamium album vulgare. Pl. 52. 4

The root is fibrous and creeping.

The stalk is square, hollow, upright, not branched, and a foot and half high.

The leaves are placed in pairs; and they are of a fine bright green: they are oblong, broad, sharp-pointed, and sharply serrated.

The flowers stand in the bosoms of the leaves; and they are large and white, a little hairy, and distinguished very prettily by the black edges of the buttons on the filaments, which in some manner mark the arithmetical figure 8.

The seeds are four after every flower; and they are blackish. The whole plant has a singular, but not disagreeable smell.

It is common under hedges, and in all cultivated ground. It flowers in June.

C. Bauhine calls it *Lamium album non fetens folio oblongo*. Others only *Lamium album*. Our common people call it *Deadnettle*, and *Archangel*.

The whole herb is subastringent. The roots, dried and powdered, are good in fluxes; but the principal virtue is in the flowers: these are at once subastringent and balsamick. A conserve made of them with sugar is excellent against the *fluor albus*. It is a family-medicine, but very well deserves to be received in the shops. I have known great cures performed in this troublesome and obstinate complaint by this conserve, and a decoction of comfrey root.

2. Red Deadnettle.

Lamium vulgare rubrum. Pl. 52. 5

The root is a little tuft of fibres.

The first leaves are small, roundish, and indented: they stand on slender reddish footstalks; and are of a dusky green.

The stalks are square and hollow: they are a foot long, but they do not stand upright: they lean and trail in the lower part upon the ground: they have usually a few leaves about the bottom, like those from the root; and about two pairs of others, placed at distances, one pair near the bottom, the other near the top. At the summit there are two or three other pairs, among which rise the flowers.

These are small and red.

No 36.

The seeds are brown.

It is common about gardens, and wherever ground has been dug. It flowers from April to October.

C. Bauhine calls it *Lamium purpureum fatidum folio subrotundo*. Others only *Lamium rubrum*.

3. Red Deadnettle with divided leaves.

Lamium rubrum foliis dissectis. Pl. 52. 6

The root is fibrous and brown.

The first leaves are placed on slender footstalks; and they are broad, short, and deeply divided by about five irregular indentings.

The stalk is of a pale green, and not very firm, ten inches high, and hollow.

The leaves are placed in pairs on short footstalks; and they are broad, short, and deeply divided.

The flowers stand in the bosoms of the leaves; and they are small and red.

The seeds are brown.

It is not uncommon on plowed land, and it flowers in May.

Ray calls it *Lamium rubrum minus foliis profunde incis.*

4. Great Henbit.

Lamium folio caulem ambiente. Pl. 52. 7

The root is small and fibrous.

The first leaves are supported on slender footstalks; and they are broad, short, and waved at the edges: frequently also there rise a kind of suckers from the root, each supporting six or eight of these leaves.

The stalks are numerous, square, hollow, and about five inches in length: they are not much branched, and they trail upon the ground.

The leaves on these are unlike those from the root: two naturally grow at a joint; but they unite, and form a kind of single roundish leaf, through which the stalk runs in a perfoliate manner.

The flowers are small, and of a pale red: they stand in the bosoms of the leaves.

The seeds are oblong and brown.

It is common on ground that has been plowed or dug. It flowers in July.

C. Bauhine calls it *Lamium folio caulem ambiente*.

Authors speak of a lesser species; but it is only a variety.

5 A

5. Yellow

5. Yellow Deadnettle.

Lamium flore flavo. Pl. 52. 10

This is a plant of regular growth, and of great beauty.

The root creeps under the surface, and has many long, thick fibres.

The stalks are square, light, hollow, and a foot or more in height; they seldom grow perfectly erect, but trail or stoop a little.

The leaves stand in pairs; and are oblong, moderately broad, elegantly serrated, and of a fine green.

The flowers are large, and of a beautiful yellow: they rise in considerable number in the bosoms of the leaves.

The seeds are oblong and brown.

It is frequent in the dry ditches which surround woods, and elsewhere among bushes. It flowers in June.

C. Bauhine calls it *Lamium folio oblongo luteum*. Others, *Lamium flavo flore*.

6. Hemp-Deadnettle.

Urtica foliis angustis serratis. Pl. 52. 9

The root is creeping and fibrous.

The stalk is square, hollow, light, and a foot or more in length. Its colour is brown; and it is covered with a kind of bristles.

The leaves stand two at a joint; and they have slender footstalks: they are oblong, narrow, sharp-pointed, and sharply serrated; and they have on the under-side very large ribs: they have been supposed from this and from their colour, which is a dusky green, to resemble the single leaves of hemp.

The flowers are large and gaping: they are of a bright red; and they are placed in tubular cups, terminated by a kind of prickles: they stand in tufts at the tops of the stalks and branches.

The seeds are large and blackish.

It is common about corn-fields, and on ground that has been dug. It flowers in July.

C. Bauhine calls it *Urtica aculeata foliis serratis*. Others, *Cannabis spuria*.

7. Narrow-leaved Yellow Deadnettle.

Lamium luteum foliis angustioribus serratis.

The root is creeping, white, and hung with many fibres.

DIVISION II. FOREIGN SPECIES.

Indian Deadnettle.

Lamium foliis dissectis orientale.

The root is composed of numerous, long, brown fibres, very tough, and of a disagreeable smell.

The stalk is upright, square, and of a brownish colour.

The leaves are placed in pairs at distances; and they are very beautiful. Their colour is a

The stalks are slender, square, and about a foot high: they are rarely branched; and their colour is a dark green or brown.

The leaves are placed in pairs, and have slender footstalks: they are long, and very narrow, deeply serrated, and of a faint green.

The flowers grow all the way up in the bosoms of the leaves; and they are large, and of a pale yellow.

The seeds are small and brown.

We have it in woods in Sussex. It flowers in September.

Ray calls it *Lamium luteum foliis angustissimis*.

8. Great-flowered Hemp-Deadnettle.

Lamium cannabinum folio flore magno.

The root is long and slender, and has many fibres.

The stalk is weak, square, branched, and two feet in length.

The leaves are broad and oblong: they are deeply jagged, sharp-pointed, and of a very bright green.

The flowers stand about the tops of the branches in clusters growing in the bosoms of the leaves: they are very large, and of a snowy white.

The seeds are large and blackish.

We have it about the edges of forests. It flowers in July.

Ray calls it *Cannabis spuria flore albo magno elegant*.

9. Hemp-Deadnettle with variegated flowers.

Lamium folio cannabinum floribus variegatis.

The root is composed of numerous, long, and slender fibres.

The stalk is square, firm, hairy, and two feet and a half in height.

The leaves stand in pairs; and they are long, narrow, of a dark green, and sharply serrated.

The flowers are placed in a kind of spikes at the tops of the stalks, and beautifully variegated with white, red, and yellow.

It is common in the northern counties, and flowers in July.

Ray calls it *Lamium cannabinum folio flore amplo luteo labio purpureo*.

fine green; and they are deeply divided at the edges.

The flowers stand in clusters in the bosoms of the upper leaves; and are large and beautiful.

The seeds are large and purplish.

It is a native of the East Indies, and of the Greek islands, and flowers in August.

Tournefort calls it *Lamium orientale foliis elegantius laciniatis*.

GENUS

GENUS XIX.

BASTARD BAUM.

MELISSOPHYLLUM.

THE flower is labiated, and is formed of a single petal. The tubular part is long and slender: the upper lip is large, rounded, and placed upright: the lower lip is broad and obtuse. The cup is hollowed, and large, and at the top is divided into two lips. The seeds are four after every flower; and they stand naked.

Linnaeus places this among the *didynamia gymnospermia*; the flower having two longer and two shorter threads, and the seeds standing naked in the cup. This author allows it to be a distinct genus; but he alters the received name, writing it *melittis*.

There is but one known species of this genus; and that is common to Britain, and all the northern parts of Europe.

Bastard Baum.

Melissophyllum. Pl. 52. 10

The root is composed of numerous, thick fibres, of an acrid and bitterish taste.

The stalk is square, upright, firm, and a foot and half high: it is of a dusky green colour, and full of pith.

The leaves are considerably large, broad, oblong, of a dusky green colour, and of a rough surface: they are placed in pairs, and have slender footstalks.

The flowers rise in the bosoms of the leaves; and they are large and purple.

The seeds are uneven, large, and brown.

It is common in the woods of Devonshire, and some other of the adjoining counties, and flowers in August.

C. Bauhine calls it *Lamium montanum melisse folio*. Others, *Melissa*, and *Melissophyllum*.

It is said to be a cephalick; but its virtues are not well established.

GENUS XX.

ALL HEAL.

SIDERITIS.

THE flower is labiated, and is formed of a single petal. The tubular part is very short: the upper lip is rounded and turned, and is a little nicked at the edge; the lower lip is divided into three unequal segments. The cup is tubular, formed of a single piece, and terminated by five points. The seeds are four after every flower; and they stand naked.

Linnaeus places this among the *didynamia gymnospermia*; the flower having two threads longer than the others, and the seeds standing naked.

DIVISION I. BRITISH SPECIES.

1. Broad-leaved Little Allheal.

Sideritis pumila folio latiore.

The root is long, slender, white, and furnished with a few fibres.

The first leaves are placed on slender footstalks: they are oblong, broad, and indented at the edges: their colour is a pale green, and they have a faint smell.

The stalks are square, weak, and branched: they are six or eight inches long; and they sometimes stand erect, sometimes lie upon the ground.

The leaves on them are set in pairs; and they are oblong, broad, serrated, and of a pale green.

The flowers stand in the bosoms of the leaves, and are small: their colour is a pale red; but they are spotted on the inside with purple.

The seeds are brown.

It is common in our corn-fields, and flowers in July.

C. Bauhine calls it *Sideritis alpinus trifraginis folio*.

2. Clown's Allheal.

Sideritis fatida strumosa radice. Pl. 52. 11

The root is composed of numerous, irregular, tuberous pieces, connected by brown, thick fibres.

The stalk is upright, hairy, of a pale green, square, not much branched, and two feet high.

The leaves stand in pairs: they are oblong, narrow, serrated at the edges, hairy, and of a pale green.

The flowers are very numerous: they stand in separate clusters round the upper part of the stalk, and together form a kind of spike: they are purple; but the lower lip is spotted with white.

The seeds are angulated, small, and blackish.

It is common in damp places, and flowers in August.

C. Bauhine calls it *Stachys palustris fatida*. The common writers, *Sideritis Anglica strumosa radice*.

The fresh leaves bruised are very eminent as a vulnerary: they stop the bleeding of a fresh wound, and without any other application heal it.

3. Broad-leaved yellow Allheal.

Sideritis latifolia flore flavo. *N^o 132. 12*

The root is composed of small white fibres.

The first leaves are supported on slender footstalks; and they are short, broad, a little indented at the edges, and of a dusky green.

The stalk is square, hollow, of a faint green, and about a foot high.

The leaves stand in pairs on it; and they are oblong and broad: their colour is a bright green, and they are indented at the edges.

The flowers rise in tufts in the bosoms of the leaves; and they are moderately large and yellow.

The seeds are oblong, cornered, and brown.

It is not uncommon in our northern counties in cultivated land. It flowers in July.

Ray calls it *Sideritis arvensis latifolia virgata lutea*.

4. Narrow-leaved red Allheal.

Sideritis angustifolia flore rubente.

The root is long, slender, and furnished with many fibres.

The first leaves are numerous: they are oblong, narrow, of a brownish green, and indented at the edges: these quickly wither.

The stalk is square, of a purplish colour, and a foot high.

The leaves stand in pairs; and they are narrow, oblong, of a deep green, and serrated.

The flowers are small and red: they are placed in tufts about the tops of the stalks; and each is variegated with two white spots on the lower lip.

The seeds are small and brown.

It is common in corn fields, and flowers in July.

C. Bauhine calls it *Sideritis arvensis angustifolia rubra*. Others, *Ladanum segetum*.

All these are supposed to be excellent against fresh wounds.

DIVISION II. FOREIGN SPECIES.

Canary Allheal.

Sideritis latifolia Canariensis. *N^o 132. 13*

The root is long, thick, and brown; and it is hung with many fibres.

The first leaves are placed on long, slender, reddish footstalks; and they are oblong, broad, and of a pale green, obtuse at the end, a little crenated at the edges, and dented for the stalk at the base.

The stalk is shrubby, firm, upright, and not much branched.

The leaves on it are placed in pairs; and they have long, slender footstalks: they resemble those from the root, but they are smaller; and they are of a whitish colour, and soft to the touch.

The flowers stand in tufts in the bosoms of the upper leaves; and they are small and white.

The seeds are brown.

It is a native of the Canaries, and flowers in July.

Commelin calls it *Stackys Canariensis frutescens verbasci folio*.

It is esteemed an astringent and vulnerary.

G E N U S XXI.

CALAMINT.

CALAMINTHA.

THE flower is labiated, and is formed of a single petal. The tubular part at the base is cylindrick and even. The upper lip is divided at the extremity into three points: the lower lip is divided into three segments; and of these the middle one is largest, and is heart-fashioned. The cup is hollow, tubular, and formed also into two lips. Four seeds follow every flower; and they stand naked in the cup. The whole plant is of a strong, and not agreeable smell, and of an acrid taste.

Linnaeus places it among the *didynamia gymnospermia*; the threads in the flower being two longer and two shorter, and the seeds having no covering but the cup. He does not allow *calamint* to be a distinct genus, but makes the several kinds of it species of *baum* or *melisa*.

1. Common Calamint.

Calamintha vulgaris. *N^o 132. 14*

The root is composed of numerous, brown fibres.

The stalks are woody, and a foot or more in height, very much branched, and of a whitish colour.

The leaves are placed in pairs; and they are roundish, a little waved, or irregularly notched at the edges, and of a brownish green.

The flowers are moderately large, and of a bluish white: they stand in clusters in the bosoms of the upper leaves.

The seeds are small and brown.

It is common by way-sides, and flowers in July.

C. Bauhine calls it *Calamintha vulgaris vel officinarum Germanie*. Others, *Calamintha major*.

2. Smaller Calamint.

Calamintha odore pulegii. *N^o 132. 15*

The root is slender, and hung with many fibres.

The stalks are branched, and near a foot high: they are firm, hard, upright, and of a whitish colour.

The leaves are very numerous: they are placed

in pairs; and they are small, and of an oblong, or somewhat oval form: they are of a whitish colour; and have a strong smell, between that of the common *calamint* and *pennyroyal*.

The flowers grow from the bosoms of the leaves at the tops of the plant; and they are small and white.

The seeds are brown.

It is common by way-sides with the former, and flowers in July.

C. Bauhine calls it *Calamintha pulegii odore frve*

nepeta. Others, *Calamintha minor*. Our people, *Field-calamint*.

Both this and the former are excellent medicines in hystrick complaints: they promote the menses; and are good against obstructions of the viscera.

They may be taken dried and powdered; but the better method is in a strong infusion in the manner of tea. A conserve may also be made of the tops.

G E N U S XXII.

GROUND-IVY.

HEDERA TERRESTRIS.

THE flower is labiated, and is formed of a single petal. The tubular part is slender and compressed. The upper lip is upright and simple: it is obtuse at the end, and a little split: the lower lip is divided into three segments; and the middle one of these is larger than the others; and nipped at the end. The cup is formed of a single piece; and is tubular, and divided into five parts at the rim. The seeds after each flower are four in number, and oval.

Linnaeus places this among the *didynamia gymnospermia*; the flower having two longer and two shorter threads, and the seeds standing naked.

He takes away the received name from the genus, and calls it *glecboma*.

1. Common Ground-Ivy.

Hedera terrestris vulgaris. *N^o 132. 16*

The root is a tuft of long crooked fibres.

The stalks are numerous, weak, hairy, square, of a brown colour; and they trail upon the ground, and take root at the joints. There also rise with them a number of small, running shoots, which root at their ends; and the plant is thus propagated in abundance.

The leaves are placed in pairs; and they have slender footstalks: where they first shoot they are reddish, afterwards of a dusky green, and hairy: they are of a roundish figure, crenated at the edges, and somewhat pointed.

The flowers are moderately large and blue: they rise from the bosoms of the leaves: they are followed each by four small oval seeds.

The plant is common on ditch-banks, and flowers in April. That is the time where it has its full virtue.

C. Bauhine calls it *Hedera terrestris vulgaris*. Others, *Calamintha humilior folio rotundiore*.

It is an excellent pectoral and deobstruent: A conserve of the fresh-gathered tops with sugar is good against coughs. A syrup made of the juice with honey is useful in asthma. The juice pressed with white wine is also serviceable in the

jaundice; and an infusion taken in large doses operates powerfully and safely by urine, bringing away gravel, and cleansing the ureters.

The juice snuffed up the nose is celebrated against the headach. Malt-liquor in which this herb is put, is called *gill-ale*, from *gill*, an English name of the plant. It has some virtue from it, but is not comparable to the other forms.

2. Purple-flowered Ground-Ivy.

Hedera terrestris montana flore purpurascens.

The root is composed of innumerable brown, slender, crooked fibres.

The stalks are numerous, thick, but weak, of a purplish colour, and procumbent.

The leaves have long footstalks: they are placed in pairs; and they are large, roundish, dented, of a pale green, and very hairy.

The flowers stand in the bosoms of the leaves; and they are large and purple.

It is not uncommon in woods in our northern counties, and elsewhere. It flowers in April.

C. Bauhine calls it *Hedera terrestris montana*; a name most others have copied.

Some have thought it only a variety of the common kind; but it appears to be a distinct species by sowing.

G E N U S XXIII.

STINKING HOARHOUND.

BALLOTE.

THE flower is labiated: it is formed of a single petal. The tubular part is cylindrick, and of the length of the cup. The upper lip is hollow, undivided, but dented at the tip, and obtuse: the lower lip is obtuse, and is divided into three segments; the middle one of which is larger than the others, and is nipped at the end. The cup is tubular, and marked with ten ridges, and is

N^o XXXVII.

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divided

divided into five points at the edge. Beside this cup to every flower, there is a general involucre for each cluster of flowers; which is composed of narrow leaves, and divided in halves.

Linnaeus places this among the *didynamia gymnospermia*; the flower having two longer and two shorter threads, and the seeds standing naked.

DIVISION I. BRITISH SPECIES.

Stinking Hoarhound.

Ballote foetida vulgaris. 462.17

The root is thick, long, and furnished with many fibres.

The stalks are numerous, square, and upright: they are light, hollow, and a yard high.

The leaves are placed in pairs: they have slender footstalks; and they are of a rounded figure, and dark green colour, indented at the edges, soft to the touch, and hairy.

The flowers are of a pale purple: they stand

in clusters in the bosoms of the leaves surrounding the stalks.

It is common in waste grounds, and flowers in June.

C. Bauhine calls it *Marrubium nigrum foetidum ballote Dioecoris*. Others, *Ballote*.

This is one of those plants which possess great and unregarded virtues. It is one of the best remedies in medicine for hypochondriac and hysterick complaints. It may be taken in form of a conserve made of the fresh-gathered tops, and in infusion in the manner of tea.

DIVISION II. FOREIGN SPECIES.

Woolly Ballote.

Ballote caule lanato.

The root is long, divided, and furnished with many fibres.

The stalk is square, hollow, and upright; of a whitish colour, and covered with a woolly matter.

The leaves stand in pairs; and they are broad, and deeply divided into three or five segments.

The flowers are large and white.

It is a native of Siberia, and flowers in August.

Amman, to whom we owe the knowledge of this singular plant, calls it *Ballota foliis Geranii batrachoidis*.

GENUS II.

HOODED WILLOWHERB.

CASSIDA.

THE flower is labiated: it is formed of a single petal. The tubular part is very short, and turns backward. The opening is long, and flatted also. The upper lip is hollow, and divided into three segments. The cup is tubular, and undivided at the mouth, where it has a kind of scale that falls over the opening to preserve the seeds. This has the shape of a head-piece, and serves as a seed-vessel; and this alone will abundantly distinguish the plant. The seeds are four after every flower; and they stand naked in the cup, under the shelter of this most singular covering.

Linnaeus places this among the *didynamia gymnospermia*; there being two longer and two shorter threads in the flower, and the seeds having no capsule. The plant perfectly agrees with the rest in the character of the class, which is, that the seeds lie in the cup without a seed-vessel; but it does not well answer to the term devised by this author to express it; for they are not naked, though they have no capsule.

1. Common Cassida.

Cassida vulgaris. 462.10

The root is small and creeping: it is jointed at certain distances, and sends fibres from those joints.

The stalk is square, upright, branched, and about ten inches high.

The leaves stand in pairs, and have scarce any footstalks: they are oblong, broad at the base, narrower all the way to the point, and serrated at the edges.

The flowers are large, and of a fine violet blue: two of them grow together from the bosoms of the leaves, and they hang drooping.

The seeds are small and dusky; and they are covered in the cup with a fleshy substance, like a head-piece.

It is common by the sides of ditches, and flowers in July.

C. Bauhine calls it *Lyfimachia cerulea galericulata sive gratiola cerulea*. Others, *Tertianaria*, and *Cassida vulgaris*.

2. The Lesser Cassida.

Cassida minor flore purpurascens. 462.11

The root creeps under the surface: it is jointed, and sends out fibres from those joints.

The stalk is square, upright, branched, and about six inches high: it is striated, and of a reddish colour.

The leaves stand in pairs; and are broad, short, and indented.

The flowers are purple; and they grow from the bosoms of the leaves,

The seeds are four: and they are covered in the cup by a kind of head-piece, as in the former instance.

It is common about waters, and flowers in June.

Ray calls it *Cassida palustris minima flore purpureascente*.

The leaves of the *cassida* dried and powdered were a famous remedy for agues before the bark was known; but they are now disused.

GENUS XXV.

GROUND-PINE.

CHAMÆPITYS.

THE flower is formed of a single petal, and is labiated. The tubular part is short, and the upper lip is deeply divided into two segments. The lower lip is divided into three segments; of which the middle one is largest, and is rounded. The cup is tubular, formed of a single piece, divided into five parts; and rising on one side at the base. The flowers grow from the bosoms of the leaves; and the seeds are four after every flower, and roundish.

Linnaeus places this among the *didynamia gymnospermia*; the flower having two longer and two shorter threads, and the seeds being naked in the cup.

He does not allow this to be a distinct genus; but places it with the *scordium chamædrys*, and several others, under the common name of *teucrium*.

DIVISION I. BRITISH SPECIES.

Common Ground-Pine.

Chamæpitys vulgaris. 463.5

The root is long, slender, and divided.

The stalks are numerous, weak, and three inches high: they are of a greyish colour, very much branched, and covered thick with leaves.

These stand in pairs at small distances; and they have numerous young ones in their bosoms: they are of a pale yellowish green, oblong, narrow, and at the end divided into three points.

The flowers rise from the bosoms of the leaves; and are small and yellow: but the upper lip is spotted with purple on the inside.

The seeds are small, black, and round.

The whole plant has a resinous smell and taste.

It is frequent in some parts of the kingdom on chalky and other dry soils. It flowers in July.

C. Bauhine calls it *Chamæpitys lutea vulgaris sive folio trifido*.

Ground-pine is an excellent medicine in nervous disorders. It is a powerful diuretic; and it promotes the menses.

The tops dried and powdered are recommended against the gout; and there are well-authenticated accounts of great cures having been performed by them in the sciatica.

DIVISION II. FOREIGN SPECIES.

Austrian Ground-Pine. 463.55

Chamæpitys cerulea Austriaca. 53.11

This is a very beautiful plant.

The root is long, thick, divided, and hung with many fibres.

The stalks are numerous, and ten inches high, square, of a whitish colour, and downy.

The leaves stand at distances two at each joint, but with clusters of young ones in all their bosoms: they are divided into three or four long

and narrow segments; and are of a lively green on the upper side, and paler underneath.

The flowers grow from the bosoms of the leaves toward the upper part of the plant: they are very large: the body of them is of a delicate violet blue; and the under lip is whitish, and spotted with crimson.

The seeds are large and roundish.

It is frequent on the mountains of Germany, and flowers in June.

C. Bauhine calls it *Chamæpitys cerulea Austriaca*.

GENUS XXVI.

BUGLE.

BUGULA.

THE flower is formed of a single petal, and is of the labiated kind. The tubular part is cylindrick and bent. The upper lip is very small: it stands erect, and is split in two parts. The lower lip is divided into three segments: the middle one is large, and heart-fashioned: the two side ones are very small. The cup is small; and is formed of a single piece, divided into five parts at the edge. The seeds are four: they are oblong, and they have no defence but the cup.

Linnaeus places this among the *didynamia gymnospermia*; the flower having two longer and two shorter threads, and the seeds having no capsule. He takes away the received name *bugula*, and calls it *ajuga*.

1. Bugle. *Pl. 53. 3**Bugula vulgaris cerulea.*

The root is composed of numerous fibres, and it sends out creeping shoots.

The stalk is square, upright, not at all branched, and about ten inches high.

The leaves are placed in pairs, and are of a fine green: they are broad, oblong, and indented at the edges.

The flowers stand in clusters in the bosoms of the upper leaves from the middle to the top, and sometimes all the length of the stalk; so that together with the leaves they form a kind of thick spike: they are small and blue.

The seeds are roundish, and of a deep brown. It is common in our meadows, and flowers in June.

C. Bauhine calls it *Consolida media pratensis cerulea*. Others, *Bugula vulgaris*.

It stands celebrated in all the old writers as a wound-herb.

A decoction of it is good against obstructions

of the viscera, and in the jaundice. It operates by urine in a certain and safe manner.

2. Mountain-Bugle.

Bugula folio longiore. Pl. 53. 2

The root is composed of numerous, long fibres.

The stalks rise several together; and they are slender, but upright, square, of a purplish colour, and not at all branched.

The leaves are placed in pairs; and they are oblong, and moderately broad: they have no footstalks: they are narrowest at the base, and broadest toward the point; and have on each side three or four deep indentings.

The flowers grow in the bosoms of the leaves; and they are small and blue.

The seeds are round and blackish.

It is found on the Welch mountains, and flowers in July.

C. Bauhine calls it *Consolida media cerulea Alpina*. Others, *Bugula cerulea Alpina*.

G E N U S XXVII.

WOOD-SAGE.

SCORODONIA.

THE flower is formed of a single petal, and is of the labiated kind. The tubular part is short and cylindrick. The upper lip is divided into two segments: the lower lip is divided into three; of which the middle one is largest, and is of a rounded form. The cup is tubular, and lightly divided into five parts. The seeds are four, and they remain naked in the cup. The leaves resemble sage, and the smell is like that of garlic.

Linnaeus places this among the *didynamia gymnospermia*; there being two longer and two shorter threads in the flower, and the seeds standing naked in the cup.

Of this genus there is but one known species, and that is a native of Britain.

Linnaeus does not allow the genus to be distinct. He confounds it among many others, under the common name *teucrium*; but it is sufficiently distinguished in Nature.

Wood-Sage.

Scorodonia vulgaris. Pl. 50. 1

The root is long, divided, and spreading; and is furnished with many fibres.

The stalk is square, upright, firm, not much branched, and two feet in height.

The leaves are placed in pairs: they have short footstalks; and they are broad, oblong, and somewhat like those of sage, but of a rougher surface, and pale green colour.

The flowers stand in long spikes at the tops of

the stalks and branches; and they are small and greenish, with purple buttons to the filaments.

The seeds are little and brown.

It is common in woods, and flowers in July.

C. Bauhine calls it *Scordium alterum* *fræ salcia agrestis*.

It is a powerful deobstruent; and it operates by sweat and urine. The best way of giving it is in form of an infusion.

It was at one time celebrated against venereal complaints; but the use of mercurial remedies has now set aside all others in those disorders.

G E N U S XXVIII.

WATER GERMANDER.

SCORDIUM.

THE flower is formed of a single petal, and is labiated. The tubular part at the base is short. The upper lip is split into two segments; and the lower lip is divided into three: the two of these at the sides are small; but the middle one is rounded and large. The cup is formed of a single piece: it is tubular, and slightly divided into five segments. The seeds after each flower are four; and they stand naked in the cup. The stalks are procumbent; and the leaves are downy.

Linnaeus

Linnaeus places this among the *didynamia gymnospermia*: the flower having two longer and two shorter filaments, and the seeds being naked. He does not allow it to be a distinct genus, but makes it one of the species of *teucrium*. Of the *scordium*, properly distinguished by these characters, there is but one known species, and that is a native of Britain.

Water-Germander.

Scordium. Pl. 50. 9

The root is composed of numerous fibres.

The stalks are square, weak, eight or ten inches long; and they lie either entirely or in part upon the ground: they send roots from the joints, where they rest upon the ground; and thus the plant spreads over a great deal of space in a little time.

The leaves stand in pairs, and have no footstalks: they are oblong, moderately broad, dented at the edges, of a pale greyish green, and soft to the touch.

The flowers grow in the bosoms of the leaves; and they are small and red.

The seeds are minute and brown.

It is common in the Isle of Ely, and in some other parts of the kingdom on damp ground. It flowers in June.

C. Bauhine calls it only *Scordium*. Others, *Scordium verum*, and *Scordium legitimum*.

It is celebrated as a sudorific, and has a place in some of the principal compositions of the shops.

It has the credit of being an excellent medicine in malignant and pestilential fevers. To this purpose it is to be given dried and powdered.

The juice pressed out with white wine is good in obstructions of the viscera; and it is said, given alone, to be a remedy against worms in the intestines.

S E R I E S II.

FOREIGN GENERA.

Those of which there is no species naturally wild in this country.

G E N U S I.

S A G E.

S A L V I A.

THE flower is formed of a single petal, and is labiated. The tubular part is small at the base, and thence becomes wider, and compressed. The upper lip is hollow, crooked, compressed, and nipped at the extremity. The lower lip broad, and divided into three segments; the middle one of which is large, and nipped at the end. The cup is tubular, striated, and divided also into two lips at the top: the upper one of these has three, and the lower has two points. The seeds are four after every flower; and they are naked in the cup.

Linnaeus separates this from the generality of the verticillate plants, and places it among the *dianthia monogynia*; the filaments in the flower being two, and the style single. There is something so singular in the structure of these filaments, that the plant, according to this method, appears to be very nearly allied to the *didynamia*; for these two filaments are split each into two branches; one of which in each is longer, and supports a button; and the other shorter, and has in its place only a useless appendage.

1. Common Sage.

Salvia hortensis vulgaris. Pl. 50. 10

The root is long and thick, and is furnished all about with innumerable fibres.

The first leaves are very numerous: they are supported on long footstalks; and they are oblong, broad, of a rough surface, and of a redish colour: they are somewhat dented at the edges; and they are of a strong, but very agreeable taste and smell.

The stalks are square, redish, firm, very much branched, and a foot and half high.

The leaves on these resemble those from the root; but they have shorter footstalks.

Nº 37.

The flowers are placed in a kind of spikes at the tops of the stalks and branches; and they are large and blue, often tinged with purple.

The seeds are moderately large.

The tops of the plant have a fragrant resin about them, which sticks to the fingers; and these have more of the fine taste and smell of the plant than any other part.

It is a native of the warmer parts of Europe, and flowers in July.

C. Bauhine calls it *Salvia major aut spbatelus Theophrasti*. Others, *Salvia latifolia*. Our gardeners, *Red sage*.

It is a very good medicine against disorders of the

the head and nerves; and for that purpose no way is better than the common one, of taking it in tea. In this manner, drank in large quantities, it is also diaphoretick; and good in feverish disorders.

The Italians eat it as a preservative of health, and say a man need not die that has *sage* in his garden. Our people, from the same principle, eat *sage* on bread and butter; and there is no better way of taking it. Some prefer the *sage* of *virtue* to the common kind; but their qualities are nearly the same; and this is the more pleasant.

2. Sage of Virtue.

Salvia minor. *Pl. 53. 7*

The root is long, thick, woody, and furnished with many fibres.

The first leaves are placed on slender foot-stalks; and they are oblong, moderately broad, of a greyish green colour, and rough surface; and at the base of each there usually and naturally grow two small ones, called ears; but these are sometimes wanting.

The stalks are numerous, square, slender, branched, and a foot or more in height.

The leaves on them resemble those from the root; but they are smaller.

The flowers stand at the tops of the stalks in long, loose spikes; and they are of a fine pale blue.

The seeds are moderately large.

It is a native of Spain.

C. Bauhine calls it *Salvia minor aurita et non aurita*. Others only *Salvia minor*. Our gardeners, *Sage of virtue*.

Many prefer it to the common *sage* for the same purposes.

3. Candy-Sage.

Salvia angustifolia Cretica. *Pl. 53. 6*

The root is woody, and hung with numerous fibres.

The stem is woody and round; but the young branches are square.

The leaves are oblong, narrow, and of a pale green: sometimes they are a little dented at the edges, at others not at all, and some have a double large indenting near the base, in resemblance of the ears of the other *sage*.

The flowers stand in loose spikes at the tops of the branches; and are of a faint whitish purple. The cups are obtuse, and the seeds that follow are large.

G E N U S XIX.

LAVENDER.

L A V E N D U L A.

THE flower is labiated, and is formed of a single petal. The tubular part is cylindrick, and longer than the cup. The upper lip is larger than the under, and is split into two parts: the under lip is divided into three rounded segments of equal size. The cup is short: it is formed of a single piece; and is obscurely dented at the edge. The seeds are of an oval shape, and four follow every flower; and the flowers stand in naked single spikes.

Linnaeus places this among the *didynamia gymnospermia*; the threads in the flower being two longer and

It is a native of the Greek islands, and flowers in July.

C. Bauhine calls it *Salvia baccifera*. Others, *Salvia pomifera*. And our gardeners, *Apple-sage*, or *Berry-bearing sage*.

All that is natural to the plant we have here described; but it remains to explain the phrase *apple-bearing sage*.

There is a fly in the Greek islands, whose young is hatched upon this plant, in excrescences raised by the puncture of its parent. Every one knows the galls produced on our oak; and few are ignorant of their origin. A fly wounds the young shoot of the tree; and the part swells from the poisonous juice left by her in the wound, and rises into this round substance, called a *gall*. So in Crete a fly wounds the *sage*, a gall is formed, and from its shape it is called an *apple*. They err who suppose it the fruit of the plant, for it has no fruit but the four seeds in each cup.

4. Ethiopian Sage.

Salvia lanuginosa Ethiopica. *Pl. 53. 13*

The root is long, thick, and hung about with fibres.

The first leaves are large, and nearly as broad as they are long, of a whitish colour; and so covered with a woolly matter, that they lose the outline of their shape.

The stalk is square, upright, and branched: it is thick set with leaves, and is covered with the same white woolly matter.

The leaves on the stalk resemble those from the root, and are as thickly covered with the woolly matter.

The flowers rise from the bosoms of the upper leaves; and are of a snowy whiteness; but the buttons on the tops of their threads are yellow.

The seeds are four after every flower; and they lie naked in the cup.

It is a native of Greece, Africa, and some of the hottest parts of Europe.

C. Bauhine calls it *Ethiopsis foliis sinuosis*. Others, *Scalaria Ethiopica*; and some, *Ethiopian mullein*.

It is distinctly and properly a species of *sage*.

The leaves are sometimes altogether undivided, sometimes cut in at the edges, and this in a slighter or deeper manner; and from hence authors have named one or two imaginary species. They are only accidental varieties of the same plant.

and two shorter, and the seeds standing naked in the cup. He joins the *stachas* and this under one common genus; but the spiked flowers of the *lavender* are sufficiently distinguished from the others by their plain, simple structure, and by the want of that singular, coloured leaf the *stachas* has at the top.

1. Common Lavender.

Lavendula vulgaris. *Pl. 53. 12*

The root is woody, long, thick, and furnished with numerous fibres.

The plant rises in form of a low, bushy shrub. The main stem is covered with a rough, grey bark; and the long young shoots are green.

The leaves are long, narrow, and undivided at the edges, of a pale green colour, and of a very strong and aromatick smell.

The flowers grow at the tops of all the shoots in spikes: they are small, and of a beautiful blue: these tops, with the flowers, have an extremely fragrant scent.

The seeds are small and brown.

It is a native of the warmer parts of Europe. We keep it in gardens for its fragrance and its virtues.

C. Bauhine calls it *Lavendula latifolia*. Others, *Lavendula vulgaris*.

The tops of the plant, gathered just as the flowers are opening, possess its full virtues: they are excellent in nervous disorders, good against headachs and paralytick complaints, and extremely cordial and strengthening.

In vertigoes it is of great service, and against tremblings of the limbs. It also operates by urine, and promotes the menses.

A conserve of these tops is a very good method of using them. The spirit called *spirit of lavender* also possesses their virtues very fully; and has the advantage of many other good ingredients of the same intention. This is best taken on sugar.

2. Small Lavender.

Lavendula angustifolia minor. *Pl. 53. 11*

The root is long, firm, woody, and hung about with innumerable fibres.

The plant rises like the common *lavender* in a shrubby form.

The leaves are numerous; and they are oblong, very narrow, and of a fresh and lively green: they have the smell of *lavender* leaves, but less strong.

The flowers stand in short spikes at the tops of the branches; and they are larger than in the common *lavender*, and of a pale blue.

The seeds are small and dark.

It is common in the south of France, and in all the warmer parts of Europe. It flowers in August.

C. Bauhine calls it *Lavendula angustifolia*. Others, *Lavendula minor*, and *Spica*.

An oil made from this used to be brought over from Italy, and here called *oil of spike*.

It has the same virtues with the former, but in an inferior degree.

3. Jagged-leaved Lavender.

Lavendula foliis dissectis. *Pl. 53. 10*

The root is woody, irregular, and covered over with fibres.

The plant is shrubby, and a foot and half high.

The stalks are square, and of a pale green, often toward the bottom redish.

The leaves are very beautifully divided in the pinnated manner; and the small parts resembling pinnæ are again divided or nicked at the edges: they are of a whitish colour, and of an extremely fragrant smell.

The flowers are blue, and very fragrant: they stand in short spikes upon the tops of long, naked shoots in the manner of those of the common *lavender*; and they have the same fragrant smell.

The seeds are small and brown.

It is a native of Spain, and flowers early in the summer.

C. Bauhine calls it *Lavendula folio dissecto*. Others, *Lavendula multifido folio*.

Its virtues are the same with those of common *lavender*, but in an inferior degree.

G E N U S III.

S T Œ C H A S.

THE flower is labiated, and formed of a single petal. The tubular part is cylindrick, and longer than the cup. The upper lip is split into two parts, and is larger than the under. This last is divided into three roundish equal segments. The cup is small, of an oval figure, and very obscurely dented at the edges. The seeds are four after every flower; and they are small and oblong. The flowers are collected into a spike, formed of several regular series, and terminated at its top by a beautiful, coloured leaf.

Linnaeus places this among the *didynamia gymnospermia*; the flower having two longer and two shorter threads, and the seeds standing naked in the cup.

This author joins it in the same genus with *lavender*; but it has its antient separate name; and there is enough in Nature to support the distinction.

1. Common

1. Common Stœchas.

Stœchas vulgaris. *Pl. 53. 17*

The root is woody, and composed of numerous fibres, connected to an oblong head.

The plant rises in form of a small shrub, two feet high, and divided into many branches.

These are square while young; but they lose that form as they grow older and harder.

The leaves are oblong, narrow, of a whitish colour, and of a very fragrant smell.

The flowers grow in thick, short spikes; forming with their cups, and the leaves which support them, a kind of scaly head; at the top of which stands a very beautiful leaf, of a deep purple.

The flowers are small and purple; and the whole head has a very fine smell, and a highly aromatick taste.

It is a native of France, Spain, and Italy; and is also abundant in the East. It flowers in July.

C. Bauhine calls it *Stœchas purpurea*. Others, *Stœchas Arabica*, and *Spica bortenfis*. Our people call it *Arabian stœchas*, *Cassidony*, and some French *lavender*.

The spikes of flowers should be gathered for

use just before they come into full bloom. They possess the same virtues with *lavender*; but they are more cordial, and of a lighter and more agreeable flavour.

2. Jagged-leaved Stœchas.

Stœchas foliis dentatis. *Pl. 53. 16*

The root is long, thick, woody, and hung round with abundance of fibres.

The plant is shrubby, very much branched, and two feet high.

The leaves are very beautiful: they are oblong, narrow, and deeply serrated or notched all along the edges. Their colour on the upper side is a lively green, and on the under part they are whitish: the edges often turn, and appear curled. The whole leaf has a very fragrant smell and aromatick taste.

The flowers are placed in thick, short spikes, in the manner of those of the common *stœchas*; and they are small and purple.

The spike is in the same manner terminated by a purple head, which is formed of three or four irregular leaves.

It is a native of the warmer parts of Europe, and flowers in June.

C. Bauhine calls it *Stœchas folio serrato*.

GENUS IV.

ROSEMARY.

ROS MARINUS.

THE flower is labiated, and is formed of a single petal. The tubular part is longer than the cup. The upper lip is small, and is split into two parts, the edges of which turn back. The under lip is large, and turns back: it is divided into three segments; the middle one of which is largest, and is hollowed. The cup is divided into two lips. The seeds are four after every flower, and they stand naked in the cup.

Linnaeus places this among the *dianthia monogynia*; the threads in the flower being two, and the style single.

Common Rosemary.

Rosmarinus vulgaris. *Pl. 53. 15*

The root is woody, long, divided, and hung with numerous fibres.

The plant rises into a small shrub: the stem is woody, and is covered with a brown, rough bark. The young shoots are of a greyish green.

The leaves are numerous, and of a firm substance: they are oblong, narrow, sharp-pointed, not at all indented at the edges, and of a very fragrant smell: they are of a very beautiful green on the upper side, and of a silvery grey underneath.

The flowers rise in great numbers from the bosoms of the leaves toward the upper part of the branches: they are large, and of a pale blue, variegated with white.

The seeds are small, and of an oblong shape.

The whole plant has a fragrant and aromatick smell: it is lighter, and more delicate in the

flowers, and stronger in the leaves. The taste also is warm and aromatick, and not disagreeable.

It is a native of the warmer parts of Europe, and flowers in spring.

C. Bauhine calls it *Rosmarinus bortenfis angustiore folio*. Others, *Antibos*; and some, *Libanotis coronaria*.

It is a shrub of very considerable virtues.

It is excellent in all nervous disorders, against vertigoes, dizziness of the head, and tremblings of the limbs. For this purpose no form of giving it is better than a conserve made of the tender tops fresh gathered, and beat up with sugar.

It is also good against obstructions of the viscera, and in paralytick disorders.

Hungary-water is made by distilling a pure spirit from the tops of this plant, or in a coarser way, by mixing a few drops of its oil in such a spirit.

GENUS

GENUS V.

HYSSOP.

HYSSOPUS.

THE flower is labiated, and is formed of a single petal. The tubular part is of the length of the cup. The upper lip is short, undivided, and just nipped at the end; and it stands erect. The lower lip is larger, and is divided into three parts; the middle one of these is broader than the others, and is heart-fashioned. The cup is long, tubular, striated, and dented in five parts at the edges. The seeds are four after every flower; and they are of an oval form, and placed naked in the cup.

Linnaeus places this among the *didynamia gymnospermia*; the threads in each flower being two longer and two shorter, and the seeds placed in the cup without any capsule.

Common Hyssop.

Hyssopus vulgaris. *Pl. 53. 14*

The root is composed of numerous, long, thick fibres, connected to an oblong head.

The stalks are square, upright, hard, and branched.

The leaves are placed in pairs; and they are oblong, narrow, and of a pale green: they stand thick together upon the stalks; and there are usually many young leaves rising from their bosoms.

The flowers stand at the tops of the stalks in a kind of loose spikes, with leaves among them: they are large and blue.

The seeds are small and brown.

It is a native of Italy, and the warmer parts of Europe, and flowers in August.

C. Bauhine calls it *Hyssopus officinarum caerulea* *five spicata*. Others, *Hyssopus Arabum*, and *Hyssopus vulgaris*.

It is a plant of very considerable virtues. It is excellent against disorders of the breast and lungs. A syrup of *hyssop* made with honey is good in asthmatick cases, and in coughs.

It is also good against obstructions of the viscera; and it works by urine.

GENUS VI.

SAVORY.

SATUREIA.

THE flower is formed of a single petal, and is labiated. The tubular part is shorter than the cup. The upper lip is nipped at the extremity, and placed upright: the lower lip is divided into three segments; the middle one of which is broader than the others; but they are all of a length. The cup is tubular, striated, and nipped in five parts at the extremity. The seeds are four after every flower; and they are of a roundish form, and stand naked in the cup.

Linnaeus places this among the *didynamia gymnospermia*; the threads in the flower being two longer and two shorter, and the seeds naked in the cup.

1. Summer Savory.

Satureia aspera. *Pl. 54. 1*

The root is composed of a vast number of fibres, connected to a small head.

The stalks are numerous, upright, brown, divided into branches, and ten inches high.

The leaves are oblong, narrow, and of a dusky green: they stand in pairs at distances on the stalks; and they have an aromatick smell and taste.

The flowers rise from the bosoms of the upper leaves; and they are small, and of a faint redish colour, often nearly white.

The seeds are roundish and brown.

It is a native of the south of France, and flowers in July.

C. Bauhine calls it *Satureia bortenfis*, *seu Cunila sativa* Plinii.

It is principally used as a pot-herb; but it has virtues that might recommend it as a medicine.

It is good in disorders of the head and nerves,

and against obstructions of the viscera. The tops, when in flower, possess the principal virtue.

2. Winter Savory.

Satureia durior.

The root is long, divided, and furnished with numerous fibres.

The stalks are numerous, woody, very much branched, and a foot and half high: the harder parts of them are of a pale brown; the young shoots green.

The leaves are very numerous: they stand in pairs, with clusters of young leaves and shoots in their bosoms.

The flowers grow from the bosoms of the upper leaves; and they are small and white, with a faint blush of purplish.

It is a native of Italy, and is kept in our gardens for the service of the kitchen.

C. Bauhine calls it *Satureia montana*. Others, *Satureia durior*, and *Satureia Hyberna*.

3. The Thyme of the Antients.

Satureia foliis punctatis. *MS. 4. 12*

This plant, though usually called a kind of *thyme*, and distinguished by that name in some ancient authors, is properly a species of *savory*.

The root is long, thick, divided, and furnished with numerous fibres.

The stalks are upright, branched, hard, and woody.

The leaves are placed in pairs, with numbers of small ones in their bosoms; and they are small, oblong, narrow, hollowed, edged, and dotted: they are of a greyish green colour, and of a warm aromack taste.

The flowers grow in short clusters, or little heads, at the tops of the branches; and they are small and purplish.

The seeds are little, roundish, and dark-coloured.

It is a native of the Greek islands, and of the warmer parts of Europe. It flowers in June.

C. Bauhine calls it *Thymus capitatus qui Dioscoridis*. Others, *Thymum legitimum*, and *Thymum antiquorum*.

It is a fine warm aromack plant, and is good against obstructions of the viscera, and in headaches, and all nervous complaints.

G E N U S VII.

H E R B - M A S T I C K .

M A R U M .

THE flower is labiated, and is formed of a single petal. The tubular part is of a cylindrick form, and is shorter than the cup. The upper lip is of the same length with the lower, and is placed upright: it is obtuse, and nicked at the end. The lower lip is divided into three segments, of which the middle one is somewhat broadest. The cup is tubular, striated, and terminated at the rim by five bristles. The flowers are collected in a kind of woolly heads; and four roundish seeds follow each, which stand naked in the cup.

Linnaeus places this among the *didynamia gymnospermia*; the flower having four threads, two of which are longer than the others, and the seeds standing naked.

This author does not allow it to be a distinct genus, but calls it a kind of *satureia*: it is however very sufficiently distinguished by the bristles or hairs that terminate the cup; and properly retains its separate name.

Common Herb-Mastick.

Marum vulgare. *MS. 4. 13*

The root is long, slender, and hung about with fibres.

The stalks are numerous, square, slender, brittle, upright, branched, and of a brownish colour.

The leaves stand in pairs, and have no foot-stalks: they are oblong, moderately broad, sharp-pointed, not at all dented at the edges, and of a fine lively green. Their taste is very acrid.

The flowers stand at the tops of all the branches in short, woolly heads, of a whitish colour.

It is a native of Spain, and flowers in August. C. Bauhine calls it *Sampfuchus sive Marum Masticken redolens*. Others, *Marum vulgare*.

It is a warm aromack plant, and is good in nervous disorders.

The bark of the old shoots is astringent, and excellent against the overflowings of the menfes.

G E N U S VIII.

G O A T S M A R J O R A M .

T R A G O O R I G A N U M .

THE flower is formed of a single petal, and is labiated. The tubular part is of the same length with the cup. The upper lip is broad, and divided at the top into three little points: the lower lip is longer, and is divided into three segments; of which the middle one is broader than the others. The cup is in the same manner divided into two lips. The seeds are small: four follow every flower.

Linnaeus places this among the *didynamia gymnospermia*; the threads being four, two longer and two shorter, and the seeds naked.

Goats Marjoram. *MS. 4. 14**Trago origanum folio oblongo angusto.*

The root is composed of innumerable fibres.

The stalks are numerous, upright, square, branched, and about ten inches high.

The leaves are placed in pairs at small distances, and with young shoots in their bosoms;

so that the plant is very well covered with them: they are oblong, narrow, and of a whitish colour; and they have a strong smell, and an aromack taste.

The flowers are large and white: they stand in a kind of spikes at the tops of the stalks and branches.

The seeds are small, round, and black.

It

It is a native of Spain, and other of the warmer parts of Europe, and flowers in June.

C. Bauhine calls it *Trago origanum angustifolium*. Others, *Trago origanum Hispanicum*.

It is a warm and aromack plant, and is recommended for promoting the menfes; but it is little regarded.

G E N U S IX.

P O L E Y M O U N T A I N .

P O L I U M .

THE flower is formed of a single petal, and is labiated. The tubular part is short, and at the top a little bent. The upper lip stands erect, and is split into two segments, which gape asunder. The lower lip is divided into three parts; of which the middle one is largest, and is rounded at the end. The cup is tubular, divided lightly at the rim into five segments, and swelled on one side at the base. The seeds are four after every flower; and they stand naked in the cup. The flowers are collected into short clusters, which terminate the branches.

Linnaeus places this among the *didynamia gymnospermia*: the threads in the flower being four, of which two are longer than the others, and the seeds remaining naked in the cup.

This author does not allow it to be a distinct genus; but calls it a kind of *teucrium*. It is sufficiently distinguished from *teucrium* by the disposition of the flowers, and has a right to retain its old name.

1. Yellow Poleymountain.

Polium flore flavo. *MS. 4. 15*

The root is long, divided, and furnished with numerous fibres.

The stalks are firm, square, and ten inches high: part of them lie upon the ground for half their length; others stand tolerably erect, and the plant usually seen in large handsome tufts.

The leaves are placed in pairs; and they are oblong, considerably broad, obtuse, and dented at the edges: they are of a faint green colour; and are covered with a white, downy matter.

The flowers are small and yellow: they are placed together in short spikes at the tops of the stalks and branches; and, before they open, the whole tops look yellowish.

The seeds are small, roundish, and dark-coloured.

It is a native of Italy, and some other parts of Europe. It flowers in July.

C. Bauhine calls it *Polium montanum luteum*. Others, *Polium luteum*. Some, *Polium vulgare*.

2. White Poleymountain.

Polium flore albo folio angustiore. *MS. 4. 16*

The root is composed of many long and slender fibres.

The stalks are numerous; and they spread themselves into a circular tuft, the greater part lying upon the ground, and the best of them not being very upright.

The leaves are placed in pairs; and they are oblong, narrow, woolly, and white: they are sharp-pointed, and a little indented; but it is not seen unless they are examined nearly.

The flowers are small and white: they stand in thick spikes at the tops of the stalks; and these spikes or heads are woolly.

The seeds are small and blackish.

It is a native of France and Italy, and flowers in August.

C. Bauhine calls it *Polium erectum maritimum Monspeliacum*. Others, *Polium album*.

3. Purple Poleymountain.

Polium flore purpurascens. *MS. 4. 17*

The root is long, thick, woody, divided, and furnished with numerous fibres.

The stalks are hard, but weak: they lie upon the ground, and are very much branched.

The leaves are oblong, narrow, obtuse at the end, and indented at the edges: they are covered with a white, woolly matter; as are also the stalks.

The flowers are small, and of a lively purple: they are collected in thick, woolly tufts at the tops of the stalks and branches.

The seeds are small, roundish, and black.

It is a native of Italy, and flowers in August. C. Bauhine calls it *Polium maritimum Venetum*.

4. Lavender-leaved Poleymountain.

Polium folio longiore angusto integro. *MS. 4. 18*

The root is long, slender, and hung about with fibres.

The stalks are numerous, square, and in part procumbent.

The leaves are long, narrow, and undivided at the edges: they are placed in pairs upon the stalks; and are of a lively green on the upper side, and white and hoary underneath.

The flowers are large and white: they are collected into thick tufts or heads at the tops of the stalks.

The seeds are large and roundish.

It is a native of Italy, and flowers in July.

C. Bauhine calls it *Polium montanum lavandulaefolio*; a name most other writers have copied.

All these possess the same virtues; but the white kind has them in the greatest perfection.

It is a warm cordial medicine, and is good against obstructions of the viscera. It works by sweat and urine.

G E N U S

G E N U S X.

T R E E G E R M A N D E R.

T E U C R I U M.

THE flower is formed of a single petal, and is labiated. The tubular part is cylindrick and short. The upper lip is split into two segments, and stands erect: the lower lip is divided into three parts; of which the middle one is largest, and of a roundish figure. The cup is tubular, divided into five segments at the rim, and swelled on one side at the base. The seeds after each flower are four: and they stand naked in the cup.

Linnaeus places this among the *didynamia gymnospermia*; the flower having four threads, of which two are longer than the others, and the seeds remaining naked in the cup. This author joins many other genera with the *teucrium* under its common name; but we have separated them. They have been already treated of in their proper places; and what we have here to consider, is the proper *teucrium* only.

1. Tree-Germander.

Teucrium latifolium. 854. 9

The root is long, thick, and furnished with a great many fibres.

The stalks are numerous, square, firm, upright, two feet high, and considerably branched.

The leaves are placed in pairs: they have no footstalks: they are broad, short, sharp-pointed, dented at the edges; and of a beautiful green on the upper side, and hoary underneath.

The flowers are large, and of a pale yellow: they grow from the bosoms of the leaves all along the upper parts of the stalks.

The seeds are small and brown.

It is a native of Italy, and flowers in June.

C. Bauhine calls it *Teucrium*. Others, *Teucrium latifolium*, and *Teucrium vulgare*.

It is a cordial and alexipharmick, operating by sweat; and is esteemed good in putrid and petilential fevers.

G E N U S XI.

G E R M A N D E R.

C H A M A E D R Y S.

THE flower is formed of a single petal, and is labiated. The tubular part is short. The upper lip is split deeply into two parts; and the lower part is divided into three segments, of which the middle one is largest, and is of a rounded figure. The cup is tubulated, and lightly divided by five nicks at the edge. The seeds are roundish, and four follow every flower. The flowers grow from the bosoms of the leaves, not in tufts, terminating the branches.

Linnaeus places this among the *didynamia gymnospermia*; the flower having two longer and two shorter threads, and the seeds standing naked. He does not allow it to be a distinct genus; but places it among many others under the name *teucrium*.

Common Germander.

Chamedrys vulgaris. 54. 11

The root is composed of long, slender, tough fibres.

The stalks are square, and hard: they lie in part upon the ground: they are considerably branched, and a foot or more in length.

The leaves are placed in pairs; and they are oblong, broad, indented at the edges, sharp-pointed, and of a fine green.

The flowers are small and red: they rise from

2. Spanish Tree-Germander. 854. 10

Teucrium Batium folio undulato.

This is a tall and beautiful plant.

The root is woody, long, and divided into numerous parts, and furnished with many fibres.

The stem is woody, five feet high, and divided into many branches.

The leaves are placed in pairs: they are oblong, considerably broad, not at all dented at the edges, obtuse at the end, and joined to the stalks without footstalks. Their colour is a dark green on the upper side, and they are greyish underneath.

The flowers are numerous, large, and beautiful: they are of a snow-white.

It is a native of Spain and Sicily, and flowers in July.

C. Bauhine calls it *Teucrium peregrinum folio sinuato*.

Others, *Teucrium peregrinum*.

It is a cordial and alexipharmick, operating by sweat; and is esteemed good in putrid and petilential fevers.

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G E N U S XII.

D I T T A N Y O F C R E T E.

D I C T A M N U S.

THE flower is formed of a single petal, and is labiated. The tubular part is compressed. The upper lip is undivided, rounded at the end, and placed erect: the lower is divided into three nearly equal segments. The cup is general, containing many flowers, and is a kind of loose scaly head, which hangs drooping. The seeds are four after every flower; and they are small, and of a roundish figure.

Linnaeus places this among the *didynamia gymnospermia*; the flower having four threads, of which two are longer than the others, and the seeds standing naked in the cup. But he does not allow it to be a distinct: he genus calls it a kind of *origanum*.

The loose composition of the general cup, and its drooping posture on the plant, are sufficient distinctions from *origanum*, and give it a right to retain its ancient name.

Dittany of Crete.

Dictamnus Creticus. 855. 12

This is a very singular and very elegant plant.

The root is composed of a great many long, slender, and tough fibres, connected to a small head.

The stalk is square, upright, of a purplish colour, and firm substance: it is a foot high, and it sends out numerous branches.

The leaves stand in pairs, and at small distances; and they are of a singular appearance: they are broad, short, and somewhat rounded; but they have a point at the end; and they are of a greyish colour, and covered with a thick, woolly matter.

The flowers are small and purple: they are collected into oblong, loose heads, and these hang drooping at the extremities of all the branches.

The seeds are small.

It is a native of the Greek islands, and of some of the warmer parts of Europe. It flowers in July.

C. Bauhine calls it *Dictamnus Creticus*. Others, *Dictamnus Creticus acris*.

It is celebrated among the vulnerary plants by the ancients; and many incredible stories are related of its effects.

It is in reality cordial and deobstruent; and is good in all obstructions of the viscera.

It is also good in fevers.

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G E N U S XIII.

S W E E T M A R J O R A M.

A M A R A C U S.

THE flower is formed of a single petal, and is labiated. The tubular part is short and compressed. The upper lip is undivided, rounded at the end, and placed erect: the lower lip is divided into three equal segments. The common cup is formed of scaly leaves, and is of a square figure. The seeds are four after every flower; and they are roundish.

Linnaeus places this among the *didynamia gymnospermia*; the flower having four threads; of which two are longer than the others, and seeds remaining naked in the cup.

This author does not allow it to be a distinct genus; but makes it a species of *origanum*. The square shape of the head or general cup is a sufficient distinction of this plant from *origanum*, and gives it a right to retain its ancient name.

Common Sweet Marjoram.

Amaracus vulgaris. 854. 10

The root is composed of numerous, long, tough, brown fibres.

The stalk is square, upright, branched, and a foot high: its colour is brown, and its substance brittle.

The leaves are placed in pairs at small distances; and they are oblong, broad, obtuse at the end, and of a light green.

The flowers are small and white: they are

placed in great numbers in oblong, square heads at the tops of the stalk and branches.

It is a native of Spain, and other warmer parts of Europe, and flowers in July.

C. Bauhine calls it *Majorana vulgaris*. Others, *Amaracus hortensis*.

It is common at our tables; and it has virtues as a medicine. It warms and strengthens the stomach, and is good in vertiges, giddiness of the head, and other nervous complaints.

G E N U S XIV.

B A S I L.

O C Y M U M.

THE flower is formed of a single petal, and is labiated. The tubular part is short, and spread very open. The upper lip is broad, and divided into four parts: the lower lip is narrow, undivided, and serrated, and is longer than the other. The cup is very small, and it is divided like the flower into two lips. The flower is followed by four naked seeds, of an oval form.

Linnaeus places this among the *didynamia gymnospermia*; the flower having four threads, of which two are longer than the others, and the seeds standing in the cup without a capsule.

1. Common Basil.

Ocimum vulgare. Pl. 54. 14

The root is long, divided, and furnished with numerous fibres.

The stalk is square, upright, branched, and eight inches high.

The leaves are placed in pairs; and they have slender footstalks: they are large, oblong, moderately broad, sharply serrated, and pointed; and are of a fine green: they have a very fragrant and agreeable smell, but little taste.

The flowers stand at the tops of the stalks and branches in long, loose spikes: they are large, and of a whitish colour, with a faint dash of purple.

The seeds are small and oval. It is a native of the East, but is common in our gardens.

C. Bauhine calls it *Ocimum vulgatum*. Others, *Ocimum citratum*, *Ocimum vulgare medium*, and *Ocimum nigrum*.

2. Great Basil.

Ocimum majus. Pl. 54. 13

The root is composed of numerous, thick whitish fibres.

The stalk is square, firm, upright, and two feet high: it is of a purplish colour toward the bottom: and upwards it is of a pale green.

The leaves are large, and of a whitish green naturally; but often stained with purple: they are oblong, broad, and dented at the edges; and they have an extremely pleasing smell.

The flowers are placed upon the tops of the

branches in a short, loose spike: they are large and white.

The seeds are small and brown.

It is a native of the East, and flowers in August.

C. Bauhine calls it *Ocimum caryophyllatum majus*. Others, *Ocimum magnum*.

This and the former have the same qualities; but this in the greatest degree: they are used by the French and Italians in their cookery, and give a fine flavour to their dishes; but in larger quantities they are useful against obstructions of the viscera. They promote the menses, and they operate by urine. A syrup of the juice is good also in asthmatick cafes.

3. Little Bush-Basil.

Ocimum minimum ramosissimum.

The root is small and long, and is surrounded with slender fibres.

The stalk is square, six inches high, and divided into innumerable branches.

The leaves stand in pairs; and are small, and of a roundish figure, but pointed: they are of a pale green, and sometimes redish.

The flowers are small and white, faintly tinged, sometimes with purple, sometimes entirely free from it: they grow from the bottoms of the leaves on the upper parts of the plant.

The seeds are small and brown.

It is a native of Italy, and flowers in August.

C. Bauhine calls it *Ocimum minimum*.

Its virtues are the same with the others.

G E N U S XV.

M O L U C C A B A U M.

M O L U C C A.

THE flower is formed of a single petal, and is labiated. The tubular part is short. The upper lip is undivided, hollow, and placed erect: the lower lip is divided into three segments; of which the middle one is the longest, and it is nipped at the end. The cup is formed of a single piece, and opens into a wide mouth, (vastly larger than the flower) which is dented at the edge. The seeds are four after every flower: they are of an irregular figure; and they stand naked in the cup.

Linnaeus places this among the *didynamia gymnospermia*; the flower having two longer and two shorter threads, and the seeds having no capsule. He writes the name *molucella*.

1. Smooth

1. Smooth Molucca Baum.

Molucca levis. Pl. 54. 16

The root is composed of long, crooked fibres.

The stalk is upright, firm, two feet high, redish in the lower part, and somewhat squared; but not so exactly as in many of these plants.

The leaves stand in pairs; and they have long, slender footstalks: they are large, broad, and short, deeply indented, and of a dark green.

The flowers surround the joints of the upper part of the stalk; and they are small and purplish. Their cups are most conspicuous from their vast bigness; and they are of a yellowish colour.

The seeds are large, and irregularly shaped: four succeed every flower.

The whole plant has a very agreeable smell, somewhat resembling that of *baum*.

It is a native of the warmer parts of the world, and flowers in July.

C. Bauhine calls it *Molucca levis odorata*. Others, *Melissa moluccana odorata*, and *Molucca Syriaca levis*.

2. Prickly Molucca Baum.

Molucca spinosa. Pl. 54. 17

The root is composed of numerous, long, slender, and tough fibres.

The stalk is square, upright, two feet high, and branched.

The leaves are placed in pairs: they have long footstalks, and they hang drooping: they are broad, short, and deeply serrated: their colour is a faint green, and they have a very disagreeable smell.

The flowers surround the stalks at the upper joints: they are small and white; and they are sometimes more or less stained with red, or sometimes are red entirely. The cups are not so open or large as in the former kind; but they are edged with sharp prickles.

It is a native of the East, and flowers in August.

C. Bauhine calls it *Melissa Moluccana ferida*. Others, *Molucca spinosa*.

The virtues are not known.

G E N U S XVI.

B A U M.

M E L I S S A.

THE flower is formed of a single petal, and is labiated. The tubular part is of a cylindrick form.

The upper lip is short, and of an arched figure: it is roundish, and placed erect, and is nipped at the extremity: the lower lip is divided into three segments; of which the middle one is largest; and it is of a heart-like shape. The cup is tubular, and divided like the flower into two lips. The seeds are four after every flower; and they stand naked in the cup.

Linnaeus places this among the *didynamia gymnospermia*; the flower having two longer and two shorter threads, and the seeds standing naked.

Common Baum.

Melissa. Pl. 54. 10

The root is composed of innumerable long fibres, joined to an oblong head.

The stalks are square, upright, slender, branched, and two feet high.

The leaves are placed in pairs; and they have slender footstalks: they are broad, short, and indented. Their colour is a fresh and pleasant green: they have a light and soft hairyness; and they are of a very fragrant smell.

The flowers are small and inconsiderable: they are white; and they stand in clusters in the bottoms of the upper leaves.

The seeds are small and brown.

It is a native of Germany, and flowers in August.

C. Bauhine calls it *Melissa hortensis*. Others, *Melissa vulgaris*.

It is a cordial and sudorifick; but it is more used by the country-people than in regular practice.

The END of the TWENTY-FIRST CLASS.

BRITISH HERBAL.

CLASS XXII.

Plants whose flower is formed of a single petal, divided into five parts at the edge; whose seeds stand naked, and are four in number after every flower; and whose leaves are placed alternately or irregularly, not in pairs, upon the stalks.

THIS is a class as naturally and as obviously distinguished from all others, as any of the preceding. The plants which compose it wear a plain and perfect resemblance of one another, and are unlike all others. This equally joins them under one head, and separates all the rest from them. Their place, in a natural arrangement of the genera, is marked by Nature; for they follow those which have four seeds, in the same manner; but have their leaves in pairs, and have labiated flowers. Their characters, which separate them from these, are incommunicable; while what they have in common with them is also throughout the whole series unvaried.

So regular, so accurate is Nature in her distinctions. Mr. Ray, who studied her in her own course, perceived it. He took in the disposition of the leaves, as well as the structure of the flowers, into his classical characters; and by that practice he kept these plants together, which others have scattered over their works.

Linnaeus limits the classical characters of plants to the consideration of the more minute parts of their flowers: therefore he must fail in cases where the general external fashion of the flower makes the distinction, much more where Nature has placed the great mark of distinction in the situation and disposition of the leaves; which he never admits as a classical, nor indeed as a generical distinction, but only as a part of the description of the species.

Ray calls these the asperifoliate plants, guided by the roughness of the leaves of many of them: but that is an ill-chosen term. The name of a class must be equally applicable to every plant belonging to it; and how does this agree with hounds-tongue?

Borage and bugloss have rough leaves; but there are others properly of this class, which have them altogether smooth.

Nature has connected these plants by a similarity even in their smallest parts; and Linnaeus, who does not allow them to constitute a distinct class, is obliged by his method, which regards only the threads in the flower, to keep most of them together.

They make a part of his fifth class, the *pentandria*: but some of them are separated by his attachment to these lesser parts; and with the rest he has mixed in the same class plants so unlike in nature, that boys must laugh to see them brought together. The *coffee tree* and the *bonesuckle*, *nightshade* and *buckhorn*, join with *borage* and *bugloss* to make the class of the *pentandria*.

SERIES I.

Natives of BRITAIN.

Those of which one or more species are naturally wild in this country.

GENUS I.

BUGLOSS COWSLIP.

PULMONARIA.

THE flower is formed of a single petal: it is tubular at the bottom; and is of the length of the cup in this part. The rim is divided into five obtuse segments. The cup is tubular, formed of a single piece, striated, and nipped in five places at the edge. The seeds are four after every flower; and they stand naked.

Linnaeus places this among the *pentandria monogynia*; the filaments in the flower being five, and the style single.

DIVISION I. BRITISH SPECIES.

Long-leaved Pulmonaria.

Pulmonaria longifolia. *P. 55. 1*

The root is fibrous.

The first leaves are numerous, large, and beautiful: they are long, and moderately broad, sharp-pointed, not at all indented at the edges, and of a deep green colour, handsomely variegated with spots of white.

The stalk is firm, upright, not much branched, and a foot and half high.

The leaves on this resemble those from the root; but they are smaller.

The flowers are very beautiful: they are placed in little tufts at the tops of the stalks and branches

in the manner of *cowslips*, which they resemble also in their shape. Their colour is a fine bright red while in the bud; but they grow purplish and bluish, as they open.

The seeds are roundish.

It is found wild in some of our large woods, and for its beauty is brought thence into gardens.

C. Bauhine calls it *Pulmonaria angustifolia rubente caeruleo flore*. Others, *Pulmonaria foliis echii*. Our English gardeners call this and the following *bugloss cowslips*, and *sage of Jerusalem*. But these are bad names; and as our language affords no better, it is best to use the Latin.

DIVISION II. FOREIGN SPECIES.

Broad-leaved Pulmonaria.

Pulmonaria latifolia. *P. 55. 2*

The root is composed of long and brown fibres.

The leaves are very numerous, and spread themselves into a thick tuft: they are supported on footstalks; and they are broad, short, sharp-pointed, not serrated at the edges, of a deep green colour, and very agreeably scattered over with white irregular spots.

The stalks are numerous, low, not branched, and of a pale green: they are eight or ten inches in height; and their leaves stand irregularly, and are broad and short.

The flowers grow in tufts at the tops of the

stalks, and resemble *cowslips* in form: they are of a delicate red when in the bud, but of a fine celestial blue when open.

The seeds are oblong and obtuse.

It is a native of the woods of Germany, and flowers in April.

C. Bauhine calls it *Symphytum maculosum*, free *Pulmonaria latifolia*. Others, *Pulmonaria maculosa*.

It is good in obstructions of the viscera, and in the jaundice. The leaves and fresh tops boiled in ale are a familiar medicine among the peasants of Germany in this disorder, and very successful.

GENUS II.

HOunds-TONGUE.

CYNOGLOSSUM.

THE flower is formed of a single petal: it is tubular at the base, and divided into five obtuse segments at the edge, and its opening is closed by five little scales. The cup is formed of a single leaf, and is divided into five segments at the edge. The seeds are four after every flower: they

they stand naked in the cup; but they have a rough, loose outer-skin, which some have called a capsule. The meadow-rue, and several other plants, give instances of seeds covered thus with a peculiar loose skin. These stand round the style.

Linnaeus places this among the *pentandria monogynia*; the filaments in the flower being five, and the style single.

DIVISION I. BRITISH SPECIES.

1. Common Hounds-Tongue.

Cynoglossum vulgare. *Pl. 55. 9*

The root is long and thick, black on the outside, white within, and of a disagreeable smell, but a sweetish taste.

The first leaves are numerous: they are very large, oblong, moderately broad, sharp-pointed, not indented, deeply veined, and of a bluish green colour.

The stalk is firm, upright, and toward the top divided into several branches. Its colour is a whitish green; and it is two feet and a half high.

The leaves stand irregularly on it; and resemble those from the root, but they are smaller.

The flowers are very numerous, and of a deep blackish purple: they are placed in long series on the upper parts of the stalks and branches; and they are of a disagreeable smell.

The seeds are very conspicuous: they are large, rough, and fixed round a pointed style.

It is common by road sides, and in dry pastures; and flowers in June.

C. Bauhine calls it *Cynoglossum majus vulgare*. Others only *Cynoglossum*.

It is a plant of very considerable virtues. It is a balsamick and astringent; and is excellent against

coughs caused by a thin, sharp rheum. It is good against the *fluor albus*, and in overflowings of the menses. A decoction of it drank largely is excellent against the bleeding of the piles; and the root, powdered, and taken half a dram for a dose in sharp loosenesses, attended with bloody stools.

2. Small green-leaved Hounds-Tongue.

Cynoglossum minus folio vivente. *Pl. 55. 4*

The root is long and thick, black on the outside, white within, and full of a slimy juice.

The first leaves are oblong, broad, and sharp-pointed: they are of a bright green on the upper side, whitish underneath, and lost to the touch.

The stalk is firm, upright, not much branched, and two feet high.

The leaves are placed irregularly on it: they are oblong, narrow, and green on the upper side, but whitish, and somewhat rough underneath.

The flowers stand in the upper parts of the stalks; and are of a bluish purple, and small.

The seeds are rough, and stand round a point.

We have it by way-sides in many parts of England. It flowers in July.

C. Bauhine calls it *Cynoglossum sempervivens*. Others, *Cynoglossa minor folio vivente*.

DIVISION II. FOREIGN SPECIES.

Borage-flowered Hounds-Tongue.

Omphalodes. *Pl. 55. 5*

The root is composed of innumerable fibres, connected to a long thick head.

The first leaves are numerous: they are placed on long footstalks; and they are broad, short, and of a fine strong green: they are broadest at the base, and sharp-pointed.

The stalks are numerous, very much branched, not upright, but irregularly diffused, and ten inches in length.

The leaves on these stand irregularly; and they are narrower, and more oblong than those from the root.

The flowers are placed on slender footstalks; and are large, and very beautiful. Their colour is a fine sky blue; and they have a white cross in the centre.

The seeds are small, and covered with a rough skin.

It is a native of Spain and Portugal, and flowers in April.

Authors have been much perplexed to what genus to refer this little plant; and it is therefore described under a great variety of names.

C. Bauhine calls it *Symphytum minus boraginifolium*. Morison, *Borago minor repens verna folio laevi*. Others have called it *Omphalodes*.

GENUS III.

BUGLOSS.

BUGLOSSUM.

THE flower is formed of a single petal: it is tubular at the base, and is deeply divided into five obtuse segments at the edge; and its opening is covered up by five little, oblong scales. The cup is formed of one piece; and is tubular, and divided at the top into five segments. The seeds are four after every flower: they are oblong, obtuse, and stand naked.

Linnaeus places this among the *pentandria monogynia*; the threads in the flower being five, and the style single. But he does not allow it to form a distinct genus: he makes the *buglosses* species of *alkanet*; but there is sufficient distinction in the depth of the segments of the flower.

DIVI.

DIVISION I. BRITISH SPECIES.

1. Small Wild Bugloss.

Buglossum sylvestris minus. *Pl. 55. 6*

The root is long, slender, white, and furnished with numerous fibres.

The stalk is upright, slender, hairy, of a pale green, and divided irregularly into many branches.

The leaves are placed alternately; and they are oblong, moderately broad, and of a fresh green: they have no footstalks: they are irregularly indented or waved on the edges; and they are hairy, and rough to the touch.

The flowers stand at the tops of the branches in considerable numbers; and they are small and blue: they rise from hairy cups.

The seeds are small and oblong.

It is common in barren pastures, and in corn-fields; and flowers in July.

C. Bauhine calls it *Buglossum sylvestris minus*. Others, *Buglossa minor*.

2. Evergreen Bugloss.

Buglossum sempervivens. *Pl. 55. 7*

This is a very elegant plant. The common writers have from the breadth of its leaves taken it to be a species of *borago*; but it is properly of the *bugloss* kind.

The root is long, thick, and white; and it is furnished with many fibres.

The first leaves are numerous, and very large:

they are broad, sharp-pointed, rough to the touch, and of a beautiful green.

The stalk is round, thick, hairy, and rough to the touch, of a fresh green, divided into numerous branches, and a yard high.

The flowers are very numerous: they stand all over the tops of the stalks and branches; and they are of a beautiful blue.

The seeds are dark coloured, and small.

We have it wild in dry pastures in Kent and Essex. It flowers in July.

C. Bauhine calls it *Buglossum latifolium sempervivens*. Others, *Borago sempervivens*.

3. Alkanet Bugloss.

Buglossum arvense radice rubente. *Pl. 55. 9*

The root is long, slender, and of a redish colour.

The stalk is round, upright, branched, and hairy: it is a foot and half high; and its colour is a pale green.

The leaves are placed irregularly on the stalks; and they are oblong and narrow, of a faint green, and hairy.

The flowers are small and white: they stand in great numbers about the tops of the stalks.

The seeds are small and brown.

It is common in corn-fields, and on ground that has been dug. It flowers in June.

C. Bauhine calls it *Lithospermum arvense radice rubra*. Others, *Buglossum anabuse facie*.

DIVISION II. FOREIGN SPECIES.

Garden-Bugloss.

Buglossum sativum vulgare. *Pl. 55. 9*

The root is long and thick, black on the outside, white within, and full of a slimy juice.

The first leaves are large, oblong, not very broad, and of a fine green colour, but covered with a grey hairyness, which makes them rough to the touch.

The stalk is round, upright, and toward the top divided into many branches: it is of a pale green, hairy, and a yard high.

The leaves are placed alternately on it; and they have no footstalks: they are oblong, nar-

row, of a pale green, hairy, and rough to the touch.

The flowers grow in great numbers on the tops of all the branches; and they are small, and of a purplish blue.

The seeds are large, and dark coloured.

It is a native of Germany, and flowers in August.

C. Bauhine calls it *Buglossum angustifolium majus*. Others, *Buglossum vulgare*.

The flowers are celebrated for their cordial virtue; but they are not much used.

GENUS IV.

VIPERS BUGLOSS.

ECHIUM.

THE flower is formed of a single petal: it is tubular at the base, and thence gradually expands into a very wide mouth; and is divided into five unequal segments at the edge: two of these stand upwards, and are longer than the others; and one in the lower part is smaller than the others, and naturally turns back. The cup is formed of a single piece, and divided into five segments. The seeds after each flower are four; and they are of a roundish figure, and pointed.

Linnaeus places this among the *pentandria monogynia*; the style being single, and the threads five.

DIVI.

DIVISION I. BRITISH SPECIES.

1. Common Vipers Buglofs.

Echium vulgare. *Pl. 55. 10*

The root is long, thick, and furnished with a few fibres.

The first leaves lie upon the ground in a round cluster: they are oblong, moderately broad, of a dusky green, and covered with rough hairs.

The stalk is round, upright, and a foot and half high: it is not much branched; and its ground-colour is a bright green; but it is usually spotted very beautifully with red, and is very hairy.

The leaves are placed alternately on it; and they are oblong and narrow, of a pale green, hairy, and sharp-pointed; and there usually stand many young ones in their bosoms.

The flowers are large, numerous, and of a very fine blue, with more or less tinge of redish or purplish as they are more or less opened. The style in the middle is white, and the buttons on the threads in the flower are red.

These flowers are placed in several series along the tops of the stalks upon slender, bending, or curling branches.

The seeds are small and brown.

It is common by way-sides, and flowers in August.

C. Bauhine calls it *Echium vulgare*; a name copied by most others.

2. Wall-Buglofs.

Echium murale. *Pl. 55. 11*

The root is long, slender, and furnished with a few straggling fibres.

The stalk is round, upright, a foot or more in height, and very much branched.

The leaves are placed alternately, and have no footstalks: they are oblong, broad at the base, smaller all the way to the point, of a pale green, and hairy.

The flowers stand in considerable number at the extremities of the branches; and they are large, and of a beautiful blue.

The seeds are irregularly shaped and pointed.

DIVISION II. FOREIGN SPECIES.

African shrubby Echium.

Echium Africanum fruticosum. *Pl. 55. 12*

The root is woody and spreading.

The stem is firm, hard, woody, and divided into many branches.

The leaves are placed irregularly; and they are very numerous: they are oblong, narrow, and of a beautiful green.

It is a native of our sea-coasts; where it grows on the barren beach, on rocks, and from the walls made to keep in the sea. It flowers in July.

C. Bauhine calls it *Lycopsis*; a name most others have followed. Some, *Echii altera species*.

3. Small-flowered Wall Buglofs.

Echium ramosum flore parvo.

The root is long and slender.

The stalk is round, upright, hairy, divided into many branches, and of a pale green colour.

The leaves are placed irregularly on it; and they have all the rudiments of branches in their bosoms in the lower part, and long shoots in the upper.

The flowers stand at the extremities of the branches; and are small, and of a purplish colour.

It is common about our southern coasts, and flowers in August.

Ray calls it *Echium alterum*, *scilicet Lycopsis Argolica*.

4. Sea-Buglofs. *Pl. 55. 13**Buglossum maritimum procumbens.*

The root is long, slender, white, and hung with a few straggling fibres.

The stalks are numerous, and they lie in great part upon the ground: they are round, of a pale green, and not much branched.

The leaves are placed alternately: they are oblong, broadest in the middle, sharp-pointed, and joined to the stalk by a narrow base.

The flowers stand in considerable number at the tops of the branches; and some rise also from the bosoms of the leaves: they are small and blue.

The seeds are roundish, but pointed, and of a pale brown.

We have it about our southern coasts. It flowers in August.

Ray calls it *Echium marinum*.

The virtues of these plants are unknown.

GENUS

GENUS V.

GERMAN MADWORT.

ASPERUGO.

THE flower is formed of a single petal; and is tubular at the base, and expanded and divided into five obtuse segments at the edge. The opening is covered up with five small scales. The cup is formed of a single leaf, and is divided into five segments; between each of which there are placed two little jaggs. The seeds are four; and they are oblong: they have no capsule, but are contained in this singular cup, which becomes very large, and closes upon them, so as to form two parallels, and shew five of the jaggs in a very peculiar and regular manner.

Linnaeus places this among the *pentandria monogynia*; the threads in the flower being five, and the style single.

It is a singular genus; of which there is but one known species; and that, though called German, is a native of Britain.

German Madwort.

Asperugo. *Pl. 55. 14*

The root is long, thick, and furnished with numerous fibres.

The stalks are long, but weak: they crawl upon the ground, if not supported, and run to the length of a yard or more: they are slender, rough, and divided into many branches.

The leaves are oblong, and considerably broad: they stand singly and alternately on the lower parts of the stalks; but toward the top two, three, or four often rise together: they are hairy, and of a bright green.

The flowers are small, and of a deep blue:

they rise from the bosoms of the leaves: these, from their smallness, are not conspicuous; but when they are fallen, the cups closing over the seeds, swell out into a great bigness.

It is found on dry grounds in our western counties not unfrequently; and in some other places. It flowers in July, and the seeds ripen in August.

C. Bauhine calls it *Buglossum sylvestre caulis procumbentibus*. Others, *Asperugo*.

It is said to be good against disorders of the nerves; but its virtues are not established upon any good authority.

GENUS VI.

BORAGE.

BORAGO.

THE flower is formed of a single petal: it is tubular at the base, and thence expands into a large breadth, and is deeply divided into five segments. The opening is edged with five small protuberances, which are nipped at the ends. The cup is formed of a single piece, and divided into five segments. The seeds are four after ever flower; and they are rough. They have no capsule; but the cup enlarges, and defends them.

Linnaeus places this among the *pentandria monogynia*; the threads in the flower being five, and the style single. He joins it with some other plants not allied properly to it.

Of the *borage*, distinctly so called, and thus defined, there is but one known species.

Common Borage.

Borago vulgaris. *Pl. 55. 15*

The root is long, thick, divided, and furnished with many fibres.

The first leaves are oblong, broad, of a pale green, hairy, and very rough.

The stalk is thick, round, juicy, and of a pale green: it is hairy, and towards the top is divided into numerous branches.

The leaves stand irregularly on it; and have short, fleshy footstalks: they are broad, and rough to the touch.

The flowers are very numerous, large, and of a celestial blue.

The seeds are oblong and pointed.

It is wild in our northern counties, and common every where in gardens. It flowers in June.

C. Bauhine calls *Buglossum latifolium* *scilicet Borago*. Others, *Borago bortenfis*.

The flowers are celebrated for their cordial virtues: but they are not much used now in medicine.

G E N U S VII.

G R O M W E L L.

L I T H O S P E R M U M.

THE flower is formed of a single petal: it is tubular at the bottom, and divided into five obtuse segments at the edge; and the hollow is open, not closed by scales, as in many of the other genera. The cup is formed of a single piece, and is divided into five hollowed, pointed segments. The seeds are four after every flower: they are smooth and hard, and they stand naked in the cup. Linnaeus places this among the *pentandria monogynia*; the threads in the flower being five, and the style single.

DIVISION I. BRITISH SPECIES.

1. Common Gromwell.

Lithospermum vulgare. *N. 55. 16*

The root is long, thick, and furnished with a few fibres.

The stalk is round, firm, upright, and divided toward the top into numerous branches.

The leaves are placed alternately; and they have no footstalks: they are oblong, rough, and of a dusky green.

The flowers stand in the bosoms of the leaves all the way up the tops of the branches; and they are small and white.

The seeds are white, glossy, extremely hard, and naked.

It is common by road-sides, and in dry pastures. It flowers in July.

C. Bauhine calls it *Lithospermum majus erectum*. Others, *Lithospermum vulgare*.

The seeds of this plant are excellent against the gravel: they operate powerfully by urine.

2. Creeping Gromwell. *N. 55. 17*

Lithospermum flore purpurascens.

The root is long, slender, and hung round with a few short fibres.

The stalks are numerous and weak: they are hairy, and of a dark green colour in the lower part; where they lie upon the ground, and frequently send out small fibres by way of roots.

The leaves are placed alternately; and they are oblong, narrow, and of a deep green.

The flowers stand at the tops of the branches; and they are large, and of a deep purple.

The seeds are rough and whitish.

We have it in barren grounds in the west of England, but not common. It flowers in August.

C. Bauhine calls it *Lithospermum minus repens latifolium*. Others, *Lithospermum majus Dodonaei*.

DIVISION II. FOREIGN SPECIES.

Shrubby Gromwell.

Lithospermum fruticosum. *N. 55. 10*

The root is long, thick, and furnished with a great many slender fibres.

The stalk is woody, firm, and divided into many branches.

The leaves are placed irregularly: in some parts they stand singly, and alternate, and in others they rise three, four, or more together: they are oblong, hairy, and of a dusky green.

The flowers rise from the bosom of the leaves; and they are small.

The seeds are hard, smooth, and whitish.

It is a native of the Greek islands, and of many of the warmer parts of Europe. It flowers in June.

C. Bauhine calls it *Anchusa angustifolia*. Others, *Anchusa arborea*.

Its seeds are celebrated in the East in nephritic disorders.

G E N U S VIII.

M O U S E - E A R S C O R P I O N - G R A S S.

M Y O S O T I S.

THE flower is formed of a single petal: it is tubular at the bottom, and divided into five obtuse segments at the rim. The opening is covered by five little scales. The cup is tubular, oblong, and divided into five segments at the edge. The seeds are four after every flower; and they stand naked in the cup, which grows larger to receive them. The leaves are oblong. The flowers grow in long, twisted series; and the seeds are glossy.

Linnaeus places this among the *pentandria monogynia*; the threads in the flower being five, and the style single.

D I V I.

1. Common Mouse-Ear Scorpion-Grass.

Myosotis vulgaris hirsuta. *N. 56. 1*

The root is long, slender, and hung about with many fibres.

The first leaves are oblong, moderately broad, obtuse, and of a dusky green: they are hairy, and soft to the touch; and they spread themselves upon the ground in a circular tuft.

The stalk is upright, hairy, of a pale green, and ten inches high.

The leaves on it stand alternately: they resemble those from the root; and they are in the same manner soft and hairy.

The flowers stand in long, slender spikes at the tops of the stalks and branches. The ends of these spikes of flowers twist round: so that they are supposed to represent the tail of a scorpion when curled up.

The flowers are small and blue.

It is common on ditch-banks and in dry pastures, and flowers in June.

C. Bauhine calls it *Ecbium scorpioides arvense*. Others, *Myosotis scorpioides arvensis hirsuta*.

It is said to be an astringent; but its virtues are not certainly known.

2. Broad-leaved Mouse-Ear Scorpion-Grass.

Myosotis scorpioides latifolia. *N. 56. 2*

The root is composed of numerous, long, and slender fibres.

The stalk is hairy, slender, upright, and a foot or more in height: it is of a pale green, and not much branched.

The leaves are oblong, and moderately broad: they are hairy, soft, and of a pleasant green: they are not at all indented at the edges.

The flowers stand in spikes at the tops of the branches; and they are large, and very beautiful. Their colour is a fine sky-blue; and they have a yellow eye.

The seeds are small and oblong.

It is common in damp woods in many parts of England, and flowers in May.

Ray calls it *Myosotis scorpioides latifolia hirsuta*.

3. Water Mouse-Ear Scorpion-Grass.

Myosotis scorpioides palustris. *N. 56. 3*

The root is composed of numerous, long fibres.

The stalk is upright, thick, fleshy, of a pale green, and divided into many branches: it rises to about a foot high.

The leaves are oblong, and somewhat broad: they stand alternately, and they are of a fresh, pale green.

The flowers grow in long, curled series at the tops of the stalks and branches; and they are of a moderate size, and of a bright blue.

The seeds are oval, pointed, and smooth.

It is common by pond-sides, and flowers in June.

C. Bauhine calls it *Ecbium scorpioides palustre*. Others, *Myosotis scorpioides palustris*.

4. Little yellow-flowered Mouse-Ear Scorpion-Grass.

Myosotis scorpioides arvensis minor.

The root is composed of slender fibres.

The stalk is weak, slender, upright, and six inches high, hairy, of a pale green, and divided into many branches.

The leaves stand alternately; and they are small: they are oblong, hairy, and of a faint green.

The flowers stand at the tops of the stalks in twisted spikes; and they are very small and yellow.

The seeds are oval, minute, and smooth.

It is common on dry ditch-banks, and flowers in July.

C. Bauhine calls it *Ecbium scorpioides minus flouculis luteis*. Others, *Myosotis scorpioides hirsuta minor*.

G E N U S IX.

C A M F R Y.

S Y M P H Y R T U M.

THE flower is formed of a single petal: it is tubular, and small at the base; and it thence swells out into a wide, hollow form; and is divided into five obtuse segments at the edge. The opening is closed by five small scales, placed in the manner of rays, and converging to a point. The cup is formed of a single piece: it is of a pentagonal figure, and is divided into five segments at the rim. The seeds are four after every flower; and they remain naked in the cup, which enlarges to defend them.

Linnaeus places this among the *pentandria monogynia*; the threads in the flower being five, and the style single.

Common Camfry.

Symphytum vulgare. *N. 56. 4*

The root is long and thick, black on the outside, white within, and full of a thick, slimy juice.

The first leaves are very large: they are oblong, broadest in the middle, sharp-pointed, of a pale green, and rough to the touch.

The stalk is thick, angulated, of a pale green, branched, upright, and two feet high.

The leaves on it are placed irregularly: they are long, moderately broad, rough, and sharp-pointed; but not indented at the edges.

The flowers stand in great numbers along the tops of the stalks and branches, which turn round with them before they open: they are small, and of a yellowish white; sometimes they are purple.

The seeds are pointed at the end, and swelled on one side.

1

It

It is common in damp places, and flowers in July.

C. Bauhine calls it *Symphytum frve consolida major*. Others, *Symphytum majus*.

It is a plant of great virtues. It is cooling, agglutinant, and subastringent.

A conserve of the roots cures the *fluor albus*. A decoction of the fresh root is excellent in coughs and soreness of the breast. The root, dried and powdered, is good against sharp loosenesses, and those attended with bloody stools.

GENUS X.

WATER-MILFOIL.

PENTAPTEROPHYLLON.

THE flower has no petals. The cup is formed of four leaves; and these are oblong, erect, and unequal: one is placed outermost, and is larger than the rest; and one innermost, which is smaller. The seeds are four; and they stand naked. There are on this plant male and female flowers, distinct on the same stalk; but they differ in nothing except the inner parts. In the male flowers there are several threads with oblong antheræ; and in the female there are no threads or antheræ, but the rudiments of the four succeeding seeds: these have no styles, but only a kind of downy stigmata. The leaves are finely divided; and they are placed many together at the joints surrounding the stalk.

Linnaeus places this among the *monacia polyandria*; the male and female flowers growing separate upon the same plant, and the threads in the flower being numerous. He takes away the name *pentapterophyllum*, by which it is most commonly known, and calls it *myriophyllum*. This is a name that has been given by the old writers to many water-plants altogether different; and we have therefore retained the other.

The species of this genus are only two; and both are natives of Britain.

1. Small Water-Milfoil.

Pentapterophyllum minus. *MS. 6. 5*

The root is long, creeping, and hung with many fibres.

The stalk is round, upright, of a pale green, and a foot high.

The leaves are finely divided, or composed of very minute parts: several of them grow together at each joint; and they resemble feathers, being formed of extremely slender, oblong segments, united at their base to a middle rib.

The flowers are small, and inconsiderable: they grow in the bosoms of the leaves from the middle to the top of the plant; and they are of a greenish white.

The seeds are oblong and small.

It is common in shallow rivers in many parts of England, and flowers in August.

C. Bauhine calls it *Millefolium aquaticum flosculis ad foliorum nodos*.

2. Spiked Water-Milfoil.

Pentapterophyllum spicatum.

The root is small and fibrous.

The stalks are slender, and of a brownish green, a foot or two in length, and divided into branches.

The leaves are numerous, and finely divided.

The flowers stand in part in the bosoms of the leaves, and in part in jointed spikes at the tops of the branches: these on the spikes are the male flowers, and those in the bosoms of the leaves the female; and these latter are followed each by four naked, oblong seeds.

It is found in brooks and rivers, and flowers in July.

C. Bauhine calls it *Millifolium aquaticum pennatum spicatum*. Others, *Myriophyllum aquaticum spicatum*.

The virtues of these plants are unknown.

SERIES

SERIES II.

FOREIGN GENERA.

Those of which there is no species naturally wild in this country.

GENUS I.

ALKANET.

ANCHUSA.

THE flower is formed of a single petal: it is tubular at the base, and slightly divided at the edge into five rounded segments; and the hollow part is open, not closed, by scales, as in some other genera. The cup is formed of a single piece: it is tubular, and is divided into five narrow parts at the rim. The seeds are four in number after every flower; and they are oblong, pointed, smooth and hard.

Linnaeus places this among the *pentandria monogynia*; the threads in the flower being five, and the style single.

He makes a strange confusion in the science in this article; for he takes away from this plant the name of *alkanet*, *anchusa*, which he uses as the generical term for *bugloss*; and he places this among the *gromwells*, making it a species of that genus.

The distinctions are sufficient in Nature; and the plant may much more properly retain its received and antient name.

Scarlet Alkanet.

Anchusa floribus rubentibus. *MS. 6. 6*

The root is long, thick, and of a fine glowing red colour.

The first leaves are numerous, and spread themselves in a round tuft: they are oblong, narrow, rough, of a dusky green, and not at all indented at the edges.

The stalks are numerous, round, hairy, divided into branches, and a foot high.

The leaves are placed alternately on them; and they are oblong, narrow, of a deep green, and hairy.

The flowers are numerous, and very beautiful: they stand in long series at the tops of all the

branches; and they are large, and of a glowing scarlet colour.

The seeds are small and hard.

It is a native of the East, but is found also in several of the warmer parts of Europe. It flowers in August.

C. Bauhine calls it *Anchusa punicis floribus*. Others, *Anchusa vulgaris*, and *Anchusa officinarum*.

The root is astringent, but is not much used as a medicine. It gives scarlet tinge to oil, and is therefore employed for various purposes where a fine colour is required, without any great virtues.

GENUS II.

TURNSOLE.

HELIOTROPIMUM.

THE flower is composed of a single petal: it is tubular at the bottom, divided into five irregular segments at the rim, and has the opening covered with five little scaly appendages, which converge together so as to form a kind of star. The cup is formed of a single piece: it is tubular, divided at the edge into five segments, and remains when the flower is fallen. The seeds are four, and of an oval figure: they stand naked in the cup, which remains unaltered.

Linnaeus places this among the *pentandria monogynia*; the threads in the flower being five, and the style single.

1. Great Turnsole.

Heliotropium majus. *MS. 6. 7*

The root is long, thick, and hard.

The stalk is upright, divided into branches, and about eight inches high: it is hairy, hollow, and of a pale green.

The leaves are placed irregularly, and have

long footstalks: they are oblong, broad, obtuse, not indented, and of a pale green colour.

The flowers stand at the tops of all the branches in long, slender spikes, intermixed with little, woolly leaves: they are small and white; and these spikes turn back at the ends, twisting like our mouse-ear scorpion-grass.

The seeds are grey, hard, and smooth.

It is a native of the warmer parts of Europe, and flowers in June.

C. Bauhine calls it *Heliotropium majus Dioscoridis*. Others, *Heliotropium majus*, and *Heliotropium vulgare*.

An infusion of the plant given in large quantities operates by urine, and is good against the gravel. The juice applied outwardly takes away warts.

2. Procumbent Turnsole.

Heliotropium supinum minus. MS. 6. 10

The root is long, slender, and blackish.

The stalks are numerous and weak: they spread themselves every way upon the ground; and they are six or eight inches long, and divided into many branches.

The leaves are placed alternately on short footstalks; and they are small, broad, obtuse, short, of a beautiful green, and a little hairy.

The flowers are small and white; and they are placed, as in the others, in long curled spikes.

It is common in the south of France, and flowers in June.

C. Bauhine calls it *Heliotropium minus supinum*. Others, *Heliotropium supinum Clusii*.

GENUS III.

HONEYWORT.

CERINTHE.

THE flower is formed of a single petal. The lower part is small and tubular: the upper part is also hollowed, but larger, and at the rim is divided lightly into five segments. Its hollow is open: there are none of those little scales, which close it in many other genera. The cup is formed of a single piece; but it is deeply divided into five segments equal in size, and pointed. The seeds are four after every flower; and they are enclosed in two loose skins, which are rough and hard.

Linnaeus places this among the *pentandria monogynia*; the filaments in the flower being five, and the style single.

Great Honeywort.

Cerinte major. MS. 6. 9

The root is long, thick, and white.

The stalks are numerous, round, fleshy, and a foot and half high: they are of a pale and somewhat bluish green.

The leaves are placed alternately at small distances; and they usually hang drooping: they are large and broad. Their colour is a bluish green, and they are spotted with white: they are broadest at the base, and obtuse at the end.

The flowers are large; and they are placed in

considerable numbers upon slender branches rising from the bosoms of the leaves: they are yellow in the upper part, and purple at the base. The tops of the branches that bear them naturally turn down spirally, as in the mouse-ear scorpion-grass.

It is a native of the southern parts of Europe, and flowers in July.

C. Bauhine calls it *Cerinte flore flavo asperis*.

This is the plant celebrated by the old Romans as the favourite of the bees. The flower contains a great deal of honey-juice.

GENUS IV.

TOURNEFORTIA.

THE flower is formed of a single petal. The lower lip is tubular, and of an oval figure; and it thence spreads into a broad rim, which is cut lightly into five broad, but pointed segments. The cup is formed also of a single piece, divided deeply into five segments. The seeds are four; and they are surrounded with a skin, and separated by a pulpy substance.

Linnaeus places this among the *pentandria monogynia*; the filaments in the flower being five, and the style single.

Nature wanders in the characters of this plant: its fruit approaches to the nature of a berry; while all the other parts, and in this the number of seeds, correspond with the rest.

Oval-leaved Tournefortia.

Tournefortia foliis ovatis integris. MS. 6. 10

The root is long, divided, and furnished with many fibres.

The stalk is woody, and yet weak; but it will climb to a great length, when there are trees or bushes to support it: it is of a pale green, and smooth.

The leaves are placed alternately; and they are large, oblong, of an oval form, sharp-pointed, not at all dented at the edges; of a beautiful deep green on the upper side, and of a blue green underneath.

The flowers stand in long series on the tops of the stalks and branches, which divide for that purpose into numerous twigs: they run only on one side of these; and they are small and yellow.

It is frequent in the woods of South America, and flowers in July.

Plukenet calls it *Virga aurea Americana frutescens glabra foliis subtus cæcis*. But this was a very improper generic name. Plumier called the genus *Pittonia*, and Linnaeus *Tournefortia*, both after the name of the author of the *Institutiones rei herbarie*.

The END of the TWENTY-SECOND CLASS.

THE

BRITISH HERBAL.

CLASS XXIII.

Plants whose flower is formed of a single petal, divided deeply into four segments, and succeeded by two seeds; and whose leaves are placed several together at every joint, and expanded like the rays of a star.

THIS is a class distinguished with great certainty by Nature, and by very obvious characters. Mr. Ray has followed, as usual, her steps, and kept the plants distinct from all others, in a peculiar class, under the name of *herbe stellate*, the stellate plants: but they are blended among many others by the modern writers; they not admitting the disposition of leaves, however singular, into the number of classical, or even generic distinctions.

The consequences of each method are obvious. In Mr. Ray these plants are kept together, and no others are mixed among them, or joined to them: in Linnaeus, and his followers, they are separated into various classes, and in each joined with plants the most unlike that studious error could have chosen: cleavers is ranked with *scabious* among the *tetrandria*; and *crosswort* is put ten classes off, with *pellitory of the wall* and *orach*.

This confirms, like the rest, the impropriety of that method.

SERIES I.

Natives of BRITAIN.

Those of which there is one or more species naturally wild in this kingdom.

GENUS I.

CROSSWORT.

CRUCIATA.

THE flowers are of two kinds, male and hermaphrodite upon the same plant. The hermaphrodite flower stands single on its stalk: it is formed of one petal, and is divided at the top into four oval and sharp-pointed segments. There is scarce any cup to this, but in its place a rudiment of the fruit, which afterwards ripens into a pair of seeds, covered with a tough skin, and so closely joined, that they seem but one. The male flowers are placed upon the rudiment of the other on each side; and each is formed of a single petal, divided uncertainly into three or four segments, which are oval and acute. This has a rudiment of a fruit underneath it, as the other; but it never ripens. Linnaeus places this among the *polygamia monœcia*; the several flowers, though distinct in sex, yet growing on the same plant, and the impregnation of the seeds being by male and hermaphrodite ones.

Crosswort.

Crosswort.

Cruciata vulgaris. Pl. 56. 11

The root is fibrous.

The stalks are numerous, upright, square, and not much branched: they are rough on the surface, and weak.

The leaves are placed in an elegant manner, four at a joint, at considerable distances; and they are oblong, broad, of a bright, but somewhat yellowish green, and hairy.

The flowers are small and yellow; and they grow in clusters from the bosoms of the upper leaves.

It is not uncommon in dry pastures. A great deal of it spreads over the grave of Mr. Doody in the church-yard of Hampstead; perhaps originally planted there to perpetuate the little spot that holds the remains of that diligent and careful botanist.

C. Bauhine calls it *Cruciata bifida*. Others only *Cruciata*.

It is an astringent. The tops, dried and powdered, are good against the overflowings of the menses, and in the *fluor albus*.

G E N U S II.

M A D D E R.

RUBIA.

THE flower is formed of a single petal, hollow at the base, and deeply divided into four segments. The cup is very small: it is formed of a single piece, divided into four parts; and is placed upon the rudiment of the fruit. The seeds are two after every flower: they are covered with a pulpy matter, and surrounded with a skin, so that they resemble two berries stuck close together.

Linnaeus places this among the *tetrandria monogynia*; the threads in the flower being four, and the style single.

Madder.

Rubia sylvestris aspera. Pl. 56. 12

The root is composed of numerous, long, and thick parts, which run under the surface, and spread to a great distance: it is of a red colour, and consists of a hard substance on the centre, with a tender juicy covering.

The stalks are numerous, square, not very firm, branched, and a foot and half high: they are of a pale green, and are very rough to the touch, and will stick to any thing, like the stalks of cleavers.

The leaves are placed with great regularity at the joints, five or six at each; and they spread out in the manner of rays.

The flowers are very numerous, and grow in

clusters at the tops of the branches; and they are of a faint yellowish green.

The fruit is large, and dark coloured.

We have it in plenty in our western counties. It flowers in July.

C. Bauhine calls it *Rubia sylvestris aspera que Discoloridis*. Others, *Rubia tinctorum*.

Mr. Ray has joined the common writers in separating as distinct species *madder* thus in its wild state, and such as is cultivated; but there is no other difference between them, than that the cultivated kind is large because better nourished.

It is of vast use in dying, and is also employed in medicine. It is good against obstructions of the viscera, and in habitual purgings.

G E N U S III.

L I T T L E M A D D E R.

RUBEOLA.

THE flower is formed of a single petal; and is tubular at the base, and divided at the edge into four parts. The cup is very small, and is placed upon the rudiment of the fruit: it is formed also of a single piece, and divided into four segments. The seeds are two after every flower; and they are connected lengthways into an oblong fruit, crowned at the top: when separated, each is flat on one side, rounded on the other, and sharp-pointed.

Linnaeus places this among the *tetrandria monogynia*; the threads in the flower being four, and the style single. He takes away the received name *rubeola*, and calls the genus *sberardia*.

Little Field-Madder.

Rubeola arvensis cerulea. Pl. 56. 13

The root is long and slender, and is hung about with many fibres.

The stalks are numerous and weak, and for the most part procumbent: they are square, hairy, and seldom branched.

The leaves stand several together in a regular

manner, disposed like rays, six or eight at a joint: they are oblong, pointed, and of a fine green.

The flowers are small and blue.

The seeds are oblong and large.

It is common in plowed lands, and flowers in July.

C. Bauhine calls it *Rubeola repens arvensis cerulea*.

Its virtues are not certainly known.

G E N U S

G E N U S IV.

L A D Y ' S B E D S T R A W.

GALLIUM.

THE flower is formed of a single petal, and is divided almost to the base into four segments. The cup is very small: it is formed of one piece, and divided into four parts; and it stands upon the rudiment of the fruit. The seeds are two: they are joined together, and have a loose covering.

Linnaeus places this among the *tetrandria monogynia*; the threads in the flower being four, and the style single.

1. White Lady's Bedstraw.

Gallium album. Pl. 56. 14

The root is composed of numerous, long, and tough fibres.

The stalk is square, weak, and of a pale green: it is not able to support itself; but it usually grows within the reach of bushes. It is very much branched, and two feet high.

The leaves stand in a stellate manner at the joints of the stalk, six or eight at each joint; and they are short, narrow, and of a deep, blackish green.

The flowers are small and white: they grow in great numbers on the tops of the branches, and cover them with a snowy whiteness.

The seeds are small.

It is common in damp places among bushes, and flowers in June.

C. Bauhine calls it *Gallium album latifolium*.

2. Four-leaved white Lady's Bedstraw.

Gallium album quadrifolium.

The roots are fibrous.

The stalk is square, weak, very much branched, and a foot and half long; but, if not supported, it usually straggles upon the ground.

The leaves are placed at the joints in a radiated manner, but there are only four at each joint: they are broad, short, and of a deep green: those on the lower parts of the stalks are smooth; but toward the top they are rough.

The flowers are small and white; but they are very numerous, covering the tops of the stalks and branches.

The seeds are large, and joined two together.

It is common in wet places, and flowers in August.

C. Bauhine calls it *Gallium polustre album*.

Some give this the English name of *White Lady's Bedstraw*; but it properly belongs to the preceding species.

3. Crosswort Lady's Bedstraw.

Gallium erethum quadrifolium Leve.

The root is long, slender, divided, and hung about with a few straggling fibres.

The stalk is square, upright, redish, very little branched, and a foot high.

The leaves are placed in a stellated manner at the joints, and there are only four at each joint: they are oblong, and not at all indented; and their colour is a delicate green.

The flowers are small and white, and they

stand in clusters on the tops of the stalks and branches.

It is a native of our northern counties, and flowers in August.

Ray calls it *Mollugo montana erecta quadrifolia*. J. Bauhine, *Rubia erecta quadrifolia*.

4. Dwarf white Lady's Bedstraw.

Gallium album minimum.

The root is long and slender, and has a few straggling fibres.

The stalks are numerous, and about three inches long: they are square, smooth, of a pale green, and not well able to support themselves upright.

The leaves stand in a stellate manner at distances on the stalks; and they are smooth, and of a pale green.

The flowers are very small and white; and they stand in great abundance on the tops of the stalks and branches.

It is common on hilly ground, especially where there is some wet. It flowers in July.

C. Bauhine calls it *Gallium album minus*. Others, *Mollugo montana minor*.

Authors have distinguished a variety of this plant under the name of *Gallium album minimum multicaule*; but it is not a distinct species: it is only this kind growing on a drier soil.

5. Yellow Lady's Bedstraw.

Gallium luteum. Pl. 56. 15

The root is long, hard, divided, and furnished with a few straggling fibres.

The stalks are firm, hard, upright, not much branched, and two feet or more in height; and they are of a yellowish green colour.

The leaves grow in a stellate manner at the joints of the stalks, a considerable number together: they are oblong, narrow, and of a blackish green.

The flowers are small; but they are extremely numerous: they cover the tops of the stalks with a fine gold yellow.

The seeds are small and brown.

It is common in dry pastures, and under hedges. It flowers in July.

C. Bauhine calls it *Gallium luteum*; a name almost all other writers have copied.

The flowers of this plant contain a latent acid: they will curdle milk. The country-people know this, and call the plant *cheese-venning*. In medicine it is said to be attenuating and deobstruent; but its virtues are not established on any good authority.

G E N U S

N° 39.

G E N U S V.

W O O D R U F F E.

A S P E R U L A.

THE flower is formed of a single petal. The lower part is fashioned into a somewhat long tube; and the edge is spread out, and divided into four narrow segments; which are oblong, pointed, and turned backwards. The cup is small, and divided into four parts at the rim; and it stands upon the rudiment of the fruit. The seeds are two after every flower; and they are covered with a loose skin, and grow together.

Linnaeus places this among the *tetrandria monogynia*; the threads in the flower being four, and the style single.

DIVISION I. BRITISH SPECIES.

Woodruffe.

Aperula vulgaris. Pl. 56. 16

The root is fibrous, and spreading.

The stalk is square, upright, not much branched, and eight inches high: it is of a pale green, and of a tender substance.

The leaves are placed at the joints in a stellate manner, a considerable number together; and they are long, narrow, sharp-pointed, smooth, and of a dark green.

The flowers are small, white, and of a very fragrant smell: they grow in tufts, almost in the manner of umbells, on the tops of the stalks.

The seeds are large and round.

It is common in our woods, and flowers in May.

C. Bauhine calls it *Asperula seu rubecula montana odora*. Others, *Asperula odorata*.

It is good against obstructions of the viscera; but it is not in use.

DIVISION II. FOREIGN SPECIES.

Blue Woodruffe.

Asperula cerulea. Pl. 56. 17

The root is composed of numerous fibres.

The stalk is square, upright, and a foot and half high: it is of a pale green, and not much branched.

The leaves are placed in the stellate manner at the joints several together: they are long, narrow, and of a pale green; and they are a little hairy.

The flowers are small and blue: they stand in

a little tuft at the top of the stalk; and they are surrounded by a series of leaves which rise above them, and in a manner hide them.

The seeds are large and brown.

It is common in the corn-fields of Italy, and flowers in July.

C. Bauhine calls it *Asperula cerulea arvensis*. Others, *Asperula cerulea*.

Its virtues are the same with those of the former.

G E N U S VI.

C L E A V E R S.

A P A R I N E.

THE flower is formed of a single petal; and is divided almost to the base into four segments. The cup is very small: it is formed also of a single piece, divided into four parts; and it stands on the rudiment of the fruit. The seeds are large and roundish, with a dent in the middle; and they are covered separately with a loose, rough skin, and grow together.

Linnaeus places this among the *pentandria monogynia*; the threads in the flower being five, and the style single.

In his *Genera Plantarum* he makes it a distinct genus; but in his species, since published, he joins it with the *gallium*, taking away its old general name: but this is wrong, for the plant is sufficiently distinct by the form of the seeds; and the old name is better preserved.

1. Common Cleavers.

Aparine vulgaris. Pl. 56. 10

The root is slender, and creeping.

The stalks are numerous, square, of a pale whitish green, and two feet or more in length: they usually rise among bushes; and they stick to every thing they touch, otherwise they would not

be able to support themselves upright. They are not much branched: they are covered with rough, hooked hairs.

The leaves are long, narrow, and of a pale green: there grow about six of them at every joint, disposed like the rays of a star.

The flowers are small and white: the seeds are round, double, and included in rough, loose skins.

It is common every where under hedges, and flowers in June.

C. Bauhine calls it *Aparine vulgaris*; a name copied by others.

It is a plant of considerable virtues. The juice is taken in the spring against scorbutick complaints with success. It also operates by urine, and is good against the gravel. The root and tops given in a strong infusion are also good against obstructions of the viscera.

2. Little Wall-Cleavers.

Aparine minima muralis. Pl. 56. 19

The root is oblong, slender, and furnished with a few fibres.

The stalks are numerous, square, and tolerably upright: they are eight inches high, and are not much branched.

The leaves are placed in a stellate manner round the stalks, about six at a joint; and they are short and pointed, of a pale green, and rough to the touch.

The flowers grow on slender, branched footstalks, rising from the bosoms of the leaves: they are small, and of a greenish white.

The seeds are roundish and double; and they are not so rough as in the other kind.

It is found on walls and ditch-banks, and flowers in May.

Ray calls it *Aparine minima*.

3. Smoother-seeded Cleavers.

Aparine femine leviore.

The root is composed of slender fibres.

The stalks are square, numerous, and a foot high: they are not much branched; and their colour is a pale green.

The leaves are oblong, narrow, blunt at the end, and of a dusky green: they stand like rays round the joints of the stalks, five or six together.

The flowers are larger than in the common kind, and of a pure white.

The seeds are double, and enclosed in a loose skin. This is not so rough as in the common kind, but has only a few short hairs upon it.

We have it common in corn-fields. It flowers in June.

Ray calls it *Aparine femine leviore*.

4. Short-leaved Marsh-Cleavers.

Aparine palustris foliis brevioribus.

The root is oblong, slender, and redish.

The stalk is square, rough, of a pale green; weak, and about a foot high.

The leaves stand in rays at the joints of the stalks; and they are short, sharp-pointed, and of a bright green.

The flowers stand on footstalks rising from the bosoms of the leaves; and they are white and small.

The seeds are double, and are enclosed in a rough skin.

It is common on bogs, and in damp places under hedges. It flowers in April.

Ray calls it *Aparine palustris minor Parisiensis flore albo*.

The virtues are the same with those of the common cleavers.

G E N U S VII.

S Q U I N A N C Y W O R T.

R U B I A C Y N A N C H I C A.

THE flower consists of a single petal. The lower part is in form of a long tube: the rim is spread out, and divided into four pointed segments. The cup is small, and divided into four parts; and it stands on the rudiment of the fruit. The seeds are two after every flower; and they are very large, round, and enclosed in a loose skin: they grow joined together. The leaves are three-cornered.

Linnaeus places this among the *tetrandria monogynia*; the threads in the flower being four, and the style single. But he does not allow it to be a distinct genus. He joins it with the *asperula* or *woodruffe*, from which it differs in the three-cornered shape of the leaves.

There is but one known species of this plant, and that is a native of Britain.

Squinancywort.

Rubia cynanchica.

The root is long, slender, and furnished with a few fibres.

The stalks are numerous, square, redish, not much branched, and about ten inches high.

The leaves stand in the manner of rays at the joints of the stalks, six at a joint in the lower part of the plant, and four at a joint in the upper: they are small, oblong, slender, and three-cornered, and sharp-pointed.

The flowers are small and red; but they are numerous, and make a pretty appearance: they are disposed in a kind of umbel at the tops of the stalks.

It is not uncommon on hilly, barren grounds. It flowers in July.

C. Bauhine calls it *Rubia cynanchica*. Others, *Rubecula quadrifolia levis*.

It is said to be a sovereign remedy for the quincy; but there is no good authority for the practice.

The END of the TWENTY-THIRD CLASS.

T H E

THE BRITISH HERBAL.

CLASS XXIV.

Plants whose flowers are placed in umbells, or rounded clusters; and are composed each of five petals, and succeeded by two seeds, which stand naked, and united, and are crowned with the cup.

THESE are distinguished as obviously as the preceding by Nature, and can never be separated from one another; nor can any other plants be joined with them in a just method.

The umbel is a tuft composed of numerous flowers, placed on divided, and often subdivided footstalks; all of which are enclosed at the base by a leafy cup, beside the small one that belongs to the flower. This plainly and obviously distinguishes them. And what Nature has thus thrown before the most slight observer, she has supported and confirmed for the strictest observation; for all those plants, which have the flowers thus thrown into umbells, have each flower thus composed of five petals, and followed by two joined and naked seeds.

This has led Mr. Ray to class them under the name of *herbae umbelliferae*; and most others have in the same manner kept them together, and separated them from all others: but the modern systems, always at war with Nature, set aside this distinction; they regard only the number of threads in the flower: therefore the obvious and certain mark of the umbel cannot have any force.

Nature is so uniform, even in the least things, that this method keeps most of the umbelliferous plants together, for they agree also in the number of threads and petals; but it does not separate them from other plants.

Linnaeus, who keeps most of the umbelliferous plants together in his class of *pentandria*, yet joins with them the *elm* and *gentian*.

The two purposes to be answered by arranging plants in classes, are, to keep those which are alike together, and to separate them from others. The regularity of Nature does not admit of varying from the first point; but these authors wholly lose sight of the latter. The *elm* and *hemlock* in Linnaeus stand in the same class and the same section: they are not separated by any subordinate division.

SERIES I.

Natives of BRITAIN.

Those of which one or more species are naturally wild in this kingdom.

GENUS I.

COW-PARSNEP.

SPHONDYLIIUM.

THE flowers are disposed in very large umbells, surrounded at the base with numerous, oblong leaves. Each is composed of five petals, in some regular, in others irregular; the outer ones being larger than the others, and all of them nipped at the end, and heart-fashioned. The cup is very small; and the seeds are broad, short, and foliaceous.

Linnaeus

The BRITISH HERBAL.

401

Linnaeus places this among the *pentandria digynia*; the threads in each flower being five, and the styles two.

This author joins the *sphondylium* and *panas Heracleum* in one genus; and, taking away the name *sphondylium*, calls it *Heraclea*. But there is sufficient distinction between these two genera; and the ancient name may very well be retained.

DIVISION I. BRITISH SPECIES.

1. Cow-Parsnep.

Sphondylium vulgare. *N. 57. 1*

The root is long, thick, and white, and of a sweetish, but somewhat acrid taste.

The first leaves are very large, deeply divided in the pinnated manner, of a rough surface, and of a pale green.

The stalk is six feet high, upright, firm, striated, and of a pale green, often purplish toward the bottom.

The flowers stand at the top of the stalk and of the branches; and they are white: they are very numerous, and are disposed in extremely broad umbells.

The seeds are very large and brown.

It is common in pastures, and flowers in July.

C. Bauhine calls it *Sphondylium vulgare hirsutum*. Others, *Sphondylium vulgare*.

It is an emollient outwardly applied.

2. Jagged Cow-Parsnep.

Sphondylium foliis tenuius divisis.

The root is long, thick, and white.

The first leaves are extremely large; and they are very deeply divided in the pinnated manner into narrow, and in some degree curled segments. The colour is a pale greyish green; and the whole leaf is hairy.

The stalk is upright and striated, not much branched, and five or six feet high.

The leaves on this are placed alternately, and they resemble those from the root: they are of a pale green, and rough.

The flowers are white, and have a faint tinge of purple often very agreeably shaded over them: they stand in rounder and smaller umbells than in the other.

The seeds are large and brown.

We have it very frequently in hilly pastures. It flowers in August.

C. Bauhine calls it *Sphondylium hirsutum foliis angustioribus*.

DIVISION II. FOREIGN SPECIES.

Dwarf Cow-Parsnep.

Sphondylium pumilum.

The root is long, slender, and redish.

The leaves that first rise from it are small, and divided into five parts, supported on long footstalks, and of a pale green.

The stalk is firm, upright, branched, and a foot high.

The leaves on it are small, divided into three parts, and supported on slender footstalks.

The flowers are small and redish.

It is a native of the hilly parts of Germany, and flowers in August.

C. Bauhine calls it *Sphondylium Alpinum parvum*.

GENUS II.

PARSNEP.

PASTINACHA.

THE flowers are disposed in large, rounded, but flat umbells, on divided and subdivided stalks: these rise naked from the stalk, having no leafy cup. Each flower is composed of five petals, which are pointed and crooked. The cup is very minute, but is divided into five parts; and the seeds are of a flattened, oblong figure, and foliaceous.

Linnaeus places this among the *pentandria digynia*; the threads in the flower being five, and the styles two.

DIVISION I. BRITISH SPECIES.

Wild Parsnep.

Pastinacha sylvestris. *N. 57. 2*

The root is long, slender, white, woody, and of a sweet taste.

The first leaves are large, and beautifully divided in the pinnated manner; their segments being numerous and narrow, and their colour a yellowish green.

The stalk is upright, firm, branched, striated, and of a yellowish colour.

N. XL.

The leaves stand alternately on it; and they resemble those from the root, but they are smaller.

The flowers are little, and of a faint yellow.

It is common in dry pastures, and flowers in August.

C. Bauhine calls it *Pastinacha sylvestris latifolia*. Others, *Elaphoglossum*.

Some have thought the *garden-parsnep* raised from this by culture; but repeated trials shew otherwise.

5 K

DIVI.

DIVISION II. FOREIGN SPECIES.

Garden-Parfney.

Passinacha sativa. Pl. 57. 3

The root is very large, white, long, tender, and of a sweet taste.

The leaves which rise first from it are large, elegantly and regularly divided in the pinnated manner, and of a yellowish green.

The stalk is two yards high, firm, branched, yellowish, striated, and hollow.

The leaves on this resemble those from the root; but they are smaller.

The flowers are little and yellow, and the seeds are light and broad.

It is wild in the Greek islands; where it acquires the full stature, but has not the true sweetness of the root unless cultivated.

It appears we had the seeds originally thence; though we have now so long cultivated the plant from those ripened in our gardens, that it has been forgotten.

C. Bauhine calls it *Passinacha latifolia sativa*.

All know the use of the roots in food; and they are very nourishing and wholesome.

GENUS III.

TORDYLIUM.

THE flowers are disposed in moderately large, irregular umbells, on divided and subdivided footstalks; and have at the bottom a kind of cup, formed of several long, narrow leaves. Each flower is composed of five regular petals, which are bent, and heart-fashioned. The cup is small. The seeds are large and roundish, two grow together, and they have serrated edges.

Linnaeus places this among the *pentandria digynia*; the threads in the flower being five, and the styles two.

1. Great Tordylium.

Tordylium majus. Pl. 57. 4

The root is long, slender, and hung with a few straggling fibres.

The first leaves are large, and divided in the pinnated manner into numerous, short, obtuse segments.

The stalk is firm, upright, and five feet high: it is striated, a little hairy, as are also the leaves, and is divided into several branches toward the top.

The leaves are placed alternately on it; and they resemble those from the root, but that they are smaller.

The flowers are small and white.

The seeds are large, flat, and broad, brown or redish in the middle, and whitish at the edges.

We have it in dry pastures, and under hedges, but not common. It flowers in July.

C. Bauhine calls it *Seseli Creticum majus*. Others, *Tordylium maximum*. We have no English name for any plant of this genus.

2. Small Tordylium.

Tordylium minus. Pl. 57. 5

The root is long, slender, white, and hung with a few fibres.

The first leaves are large, and supported on long footstalks: they are composed each of a great number of small, short, and broad segments, which have also their separate long footstalks.

The stalk is round, striated, branched, and about a foot high.

The leaves are placed irregularly on it; and resemble those from the root, but that they are smaller.

The flowers are small and white.

The seeds are large, and very beautiful: they form together a kind of flat fruit, which has a whitish curled edge.

It is found in our southern counties, but is not common. It flowers in July.

C. Bauhine calls it *Seseli Creticum minus*.

The seeds are carminative; and they work also by urine.

GENUS IV.

HOGS FENNEL.

PEUCEDANUM.

THE flowers are disposed in a very large umbel, upon divided and subdivided branches; and the whole is surrounded at its base by a number of narrow, crooked or twisted leaves. Each flower is composed of five oblong, undivided petals; and the cup to it is small, and divided by five dents at the edge. The seeds are oblong and striated.

Linnaeus places this among the *pentandria digynia*; the threads in the flower being three, and the styles two.

Hogs

Hogs Fennel.

Peucedanum vulgare. Pl. 57. 6

The root is long and thick, and at the top is usually covered with a shaggy matter, formed of the ribs of decayed stalks: it is black on the outside, green within, and, when cut, yields a yellow juice of a strong unpleasant smell.

The first leaves are placed on long footstalks: they are large, and they are divided and subdivided by threes into a multitude of long, narrow segments.

The stalk is a yard high, striated, and branched; and the leaves are placed irregularly on it, and are like those from the root.

The flowers are yellow.

It is common by the Thames side in Kent and Essex, and elsewhere. It flowers in July.

C. Bauhine calls it *Peucedanum Germanicum*. Others, *Peucedanum vulgare*.

It is an emollient, but a very valuable medicine.

A syrup made of the juice of the root with honey is excellent in asthmatic cases.

A decoction of it operates by urine, and is good against obstructions of the viscera.

It is a good outward in headachs.

GENUS V.

SHEPHERDS NEEDLE.

SCANDIX.

THE flowers are disposed in small umbells upon long, divided stalks, which have no general cup, but a few oblong leaves to the subdivisions. Each flower is composed of five unequal petals, of a heart-fashioned shape. The cup is very minute. The seeds are long, and sharp-pointed: two grow together; and each is rounded and striated on the outside, and smooth and flat within.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles two.

DIVISION I. BRITISH SPECIES.

Shepherds Needle.

Scandix vulgaris. Pl. 57. 7

The root is long, slender, white, and hung with a few slight fibres.

The leaves are small, and supported on short footstalks: they are very finely divided; and their colour is a very dark green.

The stalks are numerous, green, branched, and a foot high.

The leaves stand irregularly on them, and resemble those from the root; but they are smaller.

The flowers are moderately large and white.

The seeds are long and slender.

It is common in corn-fields, and flowers in August.

C. Bauhine calls it *Scandix semine rostrato vulgaris*. Others, *Pecten Veneris*.

Its virtues are not known.

DIVISION II. FOREIGN SPECIES.

Small Shepherds Nettle.

Scandix minor. Pl. 57. 8

The root is long, slender, white, and furnished with a few fibres.

The leaves are divided into numerous and very small segments; and they have a pleasant smell.

The stalks are numerous, branched, striated, and a foot high.

The leaves are placed alternately on these, and their footstalks surround the stalk at the base: they are like those from the root, but smaller.

The flowers stand at the extremities of the branches in little umbells; and they are small and white.

The seeds are long, and very slender.

It is common in the Greek islands, where they eat the young leaves in salads.

C. Bauhine calls it *Scandix Cretica minor*.

GENUS VI.

CHERVILL.

CHEROPHYLLUM.

THE flowers are disposed in broad, spreading umbells, on divided and subdivided branches; and they have no cup to surround their base at the stalk, but some long leaves under the subdivisions. Each flower is composed of five bent and heart-fashioned petals. The cup is very minute; and the seeds are oblong, slender, and pointed at the top, rounded on the outside, and flat within.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles two in each flower.

DIVISION II. FOREIGN SPECIES.

Garden-Parfney.

Pastinaca sativa. Pl. 57. 3

The root is very large, white, long, tender, and of a sweet taste.

The leaves which rise first from it are large, elegantly and regularly divided in the pinnated manner, and of a yellowish green.

The stalk is two yards high, firm, branched, yellowish, striated, and hollow.

The leaves on this resemble those from the root; but they are smaller.

The flowers are little and yellow, and the seeds are light and broad.

It is wild in the Greek islands; where it acquires the full stature, but has not the true sweetness of the root unless cultivated.

It appears we had the seeds originally thence; though we have now so long cultivated the plant from those ripened in our gardens, that it has been forgotten.

C. Bauhine calls it *Pastinaca latifolia sativa*.

All know the use of the roots in food; and they are very nourishing and wholesome.

GENUS III.

TORDYLIUM.

THE flowers are disposed in moderately large, irregular umbells, on divided and subdivided footstalks; and have at the bottom a kind of cup, formed of several long, narrow leaves. Each flower is composed of five regular petals, which are bent, and heart-fashioned. The cup is small. The seeds are large and roundish, two grow together, and they have serrated edges.

Linnaeus places this among the *pentandria digynia*; the threads in the flower being five, and the styles two.

1. Great Tordylium.

Tordylium majus. Pl. 57. 4

The root is long, slender, and hung with a few straggling fibres.

The first leaves are large, and divided in the pinnated manner into numerous, short, obtuse segments.

The stalk is firm, upright, and five feet high: it is striated, a little hairy, as are also the leaves, and is divided into several branches toward the top.

The leaves are placed alternately on it; and they resemble those from the root, but that they are smaller.

The flowers are small and white.

The seeds are large, flat, and broad, brown or redish in the middle, and whitish at the edges.

We have it in dry pastures, and under hedges, but not common. It flowers in July.

C. Bauhine calls it *Seseli Creticum majus*. Others, *Tordylium maximum*. We have no English name for any plant of this genus.

2. Small Tordylium.

Tordylium minus. Pl. 57. 5

The root is long, slender, white, and hung with a few fibres.

The first leaves are large, and supported on long footstalks: they are composed each of a great number of small, short, and broad segments, which have also their separate long footstalks.

The stalk is round, striated, branched, and about a foot high.

The leaves are placed irregularly on it; and resemble those from the root, but that they are smaller.

The flowers are small and white.

The seeds are large, and very beautiful: they form together a kind of flat fruit, which has a whitish curled edge.

It is found in our southern counties, but is not common. It flowers in July.

C. Bauhine calls it *Seseli Creticum minus*.

The seeds are carminative; and they work also by urine.

GENUS IV.

HOGS FENNEL.

PEUCEDANUM.

THE flowers are disposed in a very large umbel, upon divided and subdivided branches; and the whole is surrounded at its base by a number of narrow, crooked or twisted leaves. Each flower is composed of five oblong, undivided petals; and the cup to it is small, and divided by five dents at the edge. The seeds are oblong and striated.

Linnaeus places this among the *pentandria digynia*; the threads in the flower being three, and the styles two.

Hogs

Hogs Fennel.

Peucedanum vulgare. Pl. 57. 6

The root is long and thick, and at the top is usually covered with a shaggy matter, formed of the ribs of decayed stalks: it is black on the outside, green within, and, when cut, yields a yellow juice of a strong unpleasant smell.

The first leaves are placed on long footstalks: they are large, and they are divided and subdivided by threes into a multitude of long, narrow segments.

The stalk is a yard high, striated, and branched; and the leaves are placed irregularly on it, and are like those from the root.

The flowers are small and yellow.

It is common by the Thames side in Kent and Essex, and elsewhere. It flowers in July.

C. Bauhine calls it *Peucedanum Germanicum*. Others, *Peucedanum vulgare*.

It is an unpleasant, but a very valuable medicine.

A syrup made of the juice of the root with honey is excellent in asthmatick cases.

A decoction of it operates by urine, and is good against obstructions of the viscera.

It is also good outwardly in headachs.

GENUS V.

SHEPHERDS NEEDLE.

SCANDIX.

THE flowers are disposed in small umbells upon long divided stalks, which have no general cup, but a few oblong leaves to the subdivisions. Each flower is composed of five unequal petals, of a heart-fashioned shape. The cup is very minute. The seeds are long, and sharp-pointed: two grow together; and each is rounded and striated on the outside, and smooth and flat within.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles two.

DIVISION I. BRITISH SPECIES.

Shepherds Needle.

Scandix vulgaris. Pl. 57. 7

The root is long, slender, white, and hung with a few slight fibres.

The leaves are small, and supported on short footstalks: they are very finely divided; and their colour is a very dark green.

The stalks are numerous, green, branched, and a foot high.

The leaves stand irregularly on them, and resemble those from the root; but they are smaller.

The flowers are moderately large and white.

The seeds are long and slender.

It is common in corn-fields, and flowers in August.

C. Bauhine calls it *Scandix semine rostrato vulgaris*. Others, *Pecten Veneris*.

Its virtues are not known.

DIVISION II. FOREIGN SPECIES.

Small Shepherds Nettle.

Scandix minor. Pl. 57. 8

The root is long, slender, white, and furnished with a few fibres.

The leaves are divided into numerous and very small segments; and they have a pleasant smell.

The stalks are numerous, branched, striated, and a foot high.

The leaves are placed alternately on these, and their footstalks surround the stalk at the base: they are like those from the root, but smaller.

The flowers stand at the extremities of the branches in little umbells; and they are small and white.

The seeds are long, and very slender.

It is common in the Greek islands, where they eat the young leaves in sallads.

C. Bauhine calls it *Scandix Cretica minor*.

GENUS VI.

CHERVILL.

CHEROPHYLLUM.

THE flowers are disposed in broad, spreading umbells, on divided and subdivided branches; and they have no cup to surround their base at the stalk, but some long leaves under the subdivisions. Each flower is composed of five bent and heart-fashioned petals. The cup is very minute; and the seeds are oblong, slender, and pointed at the top, rounded on the outside, and flat within.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles two in each flower.

DIVISION I. BRITISH SPECIES.

1. Wild Myrrhis.

Cherophyllum fylvestre. Pl. 57. 9

The root is long, white, and hard, and has a sweetish taste, but with a sharpness, and an aromatic flavour.

The first leaves are divided into a great number of segments, which are of a pale green, a little hairy, and stand on hairy ribs.

The stalk is hollow, striated, and branched, and is a yard high.

The leaves are placed alternately on it, and resemble those from the root.

The flowers are small and white; and the seeds, when they are ripe, are brown.

It is common under hedges, and flowers in July.

C. Bauhine calls it *Cherophyllum fylvestre*. Others, *Myrrhis fylvestris*, *Cerofolium fylvestre*, and *Anthriscus Plini*.

When the plant is in flower, the stalk swells just under the joints.

2. Wild Chervill. Pl. 57. 11

Cherophyllum caule equali.

The root is long, thick, white, and furnished with a few fibres.

The first leaves are very large, and they are formed of numerous indented segments: they are naturally of a dusky green, and sometimes they are reddish.

The stalk is upright, striated, and a yard and half high: it is divided into many branches; and it is of a regular thickness, not swelling at the joints as the other.

The flowers are small and white; and the seeds are oblong and brown.

It is common by hedges, and flowers in May.

C. Bauhine calls it *Myrrhis fylvestris feminibus levis*. Others, *Cicutaria*. Our people, Cow-weed.

DIVISION II. FOREIGN SPECIES.

Garden-Chervill.

Cherophyllum sativum. Pl. 57. 12

The root is long, thick, white, and of an aromatick, and not disagreeable taste.

The leaves that rise first are large, and divided into numerous, broad, short, indented segments; of a pale green colour, and of an agreeable flavour.

The stalks are striated, hollow, upright, branched, and swelled in a kind of round knots under the joints.

The leaves on them resemble those from the

root; but the segments are narrower, and they are of a paler green.

The flowers are small and white; and the seeds, when ripe, are black.

It is a native of the Greek islands, and flowers in June.

C. Bauhine calls it *Cherophyllum sativum*. Our gardeners call it *Sweet fern*.

It is an agreeable plant in fallads; and, when taken as a medicine, operates by urine; and is good against obstructions of the viscera.

GENUS VII.

SPIGNELL.

MEUM.

THE flowers are disposed in spreading umbells on divided and subdivided stalks; and at the base of these on the stalk grow a number of long, narrow leaves. Each flower is composed of five nearly equal petals; which are of a heart-fashioned shape, and somewhat bent. The cup is very minute. The seeds are oblong, and smaller at one end, and rounded and striated on one side, and flat and plain on the other.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles two.

DIVISION I. BRITISH SPECIES.

Common Spignell.

Meum vulgare. Pl. 57. 10

The root is long, thick, and furnished with a few fibres: it is brown on the outside, and white within, and has a firm heart: the outer substance is tender, and of an aromatick, and not disagreeable taste. There frequently are side-shoots from the old roots; and at their tops there usually is a large thready tuft, of a brown colour, which is formed of the fibres of decayed footstalks.

The leaves which rise from the root are large, and of a blackish green colour; and they are di-

vided in an elegant manner into regular and extremely slender segments.

The stalk is upright, striated, branched, and two feet high.

The leaves on it resemble those from the root; but they are smaller, and somewhat paler coloured.

The flowers are small and white.

The seeds, when ripe, are black.

It is found in our western counties in rich, damp soils, but not common. It flowers in June.

C. Bauhine calls it *Meum foliis anethi*. Others only, *Meum*. Our people, *Baldmony*. It is a very powerful diuretick and deobstruent.

It is good in the jaundice, and it promotes the menses.

The root possesses most virtue, and is best given in infusion.

DIVISION II. FOREIGN SPECIES.

Italian Spignell. Pl. 57. 14

The root is long and thick, black on the outside, white within; and of a coarse taste, and disagreeable smell.

The first leaves are large; and they are divided into numerous longish and very slender segments.

The stalk is round, striated, upright, and a foot and half high.

The leaves stand alternately on this; and they are divided into fine segments, in the manner of those from the root.

The flowers are small and white, and the seeds are striated and large.

It is a native of Italy, and flowers in May.

C. Bauhine calls it *Meum latifolium adulterinum*.

GENUS VIII.

THE flowers are disposed in large umbells, of a globular figure, upon divided and subdivided footstalks; and under these there stand a few oblong leaves. The smaller clusters, which together form the whole umbel, are perfectly globular; and at the base of these there stand eight small leaves. Each flower is composed of five pointed petals, which are a little bent. The seeds are of an oval form, rounded and striated on one side, and smooth and flat on the other.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles two.

1. Great Angelica.

Angelica major. Pl. 57. 13

The root is long, thick, and furnished with many fibres: the outside is brown; but it is white within, and when cut yields a thick, yellowish juice: its taste is warm and aromatick, and its smell very fragrant and agreeable.

The first leaves are extremely large: they stand upon thick, fleshy footstalks; and are composed of oblong, broad, pointed, and serrated segments.

The stalk is round, hollow, upright, thick, and of a fine green: it is divided toward the top into many branches, and is seven or eight feet high.

The leaves on it are placed irregularly; and they resemble those from the root, but they are smaller.

The flowers are small, and of a greenish white.

The seeds are large, and greenish.

It is wild in our northern counties; but for its use is cultivated also every where in gardens.

C. Bauhine calls it *Angelica sativa*; a name most others have copied.

It is a plant of great virtues; cordial, sudorifick, and stomachick.

The candied stalks are a very agreeable way of taking it, and have a great deal of virtue; but the roots and seeds possess it in the highest degree. They are best given in powder; a scruple of the root, or five grains of the seeds, for a dose.

2. Wild Angelica.

Angelica fylvestris. Pl. 57. 16

The root is long, white, thick, and furnished with many long fibres.

The first leaves are very large: they are supported on purplish footstalks; and are formed of numerous small parts, which are broadest at the base, serrated, sharp-pointed, and of a dusky green.

The stalk is round, firm, upright, very much branched, and six feet high.

The leaves stand irregularly on it, and surround it with the bases of their footstalks: they are like those from the root, but smaller.

The flowers are small and whitish; and they form vast umbells.

The seeds are swelled and striated.

It is common by waters, and flowers in June.

C. Bauhine calls it *Angelica fylvestris major*.

GENUS IX.

HERB-GERARD.

PODAGRARIA.

THE flowers are disposed in a rounded convex umbel, on divided and subdivided branches: at the base of this there are no leaves, nor at the place of their subdivisions. Each flower is composed of five oval, hollowed, and nearly equal petals. The cup is very minute. The seeds are of an oval, oblong form, striated, and swelled on one side, and flat and smooth on the other.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles two in the flower. But he takes away its received name, and calls it *agepodium*.

Of this genus there is but one known species, and that is a native of Britain.

Herb-Gerard.

Podagraria. Pl. 57. 17

The root is slender and creeping, and it has a slight taste of angelica.

The first leaves are placed on long, purplish footstalks; and they are composed each of numerous, small, serrated segments, of a pale green colour.

The stalk is round, striated, branched, and two feet high.

The leaves stand alternately on it, and resemble those from the root, but that they are smaller, and composed of fewer parts.

The flowers are small and white.

The seeds are moderately large and brown.

The leaves of this plant have been celebrated as a remedy for the gout; but they do not deserve what has been written of them.

G E N U S X.

ALEXANDERS.

SMYRNIUM.

THE flowers are disposed in an irregular, large umbel, which from time to time increases in bigness till they are all open. There is no growth of leaves under the principal or secondary footstalks. Each flower is composed of five narrow, pointed, and somewhat bent petals. The cup is very minute. The seeds are large, and of a lunulated figure, rounded at the back, and marked with three striæ, and flat on the other side.

Linnaeus places this among the *pentandria digynia*; the flower having five threads, and two styles.

DIVISION I. BRITISH SPECIES.

Alexanders.

Smyrnum vulgare. Pl. 57. 10

The root is long, thick, and white; of a strong smell, and an acrid taste.

The leaves that rise from it are very large: they are composed of numerous, short, broad segments, which are nicked at the edges, and of a dark green; their taste is not unpleasant.

The stalk is upright, firm, striated, branched, and six feet high.

The leaves on these resemble those from the root; but they are smaller.

The flowers are small, and of a greenish white; and the seeds, when ripe, are brown.

It is found on our western coasts among rocks, and flowers in August.

C. Bauhine calls it *Hippoclinium Theophrasti*, vel *Smyrnum Dioscoridis*. Others, *Smyrnum*.

It is a very wholesome and agreeable plant. The leaves and their footstalks blanched are very pleasant raw or in soups; and they are good against scorbutic complaints.

DIVISION II. FOREIGN SPECIES.

Perfoliate Alexanders.

Smyrnum perfoliatum. Pl. 57. 19

The root is long, thick, and white.

The leaves that rise from it are very large and beautiful: they are finely divided into numerous, short, broad segments: which are deeply serrated, and of a fresh green colour.

The stalk rises in the centre of these; and is round, striated, branched, and of a pale green.

The leaves that grow on this are perfectly unlike those from the root: they are roundish, but pointed, and undivided: the stalk runs through them.

The flowers are small and whitish; and the seeds, when ripe, are black.

It is a native of the Greek islands, and flowers in July.

C. Bauhine calls it *Smyrnum peregrinum rotundum folio*.

G E N U S XI.

EARTH-NUT.

BULBOCASTANUM.

THE flowers are disposed in small umbells, composed of divided and subdivided branches; and at the base of the stalks, and subdivisions of them, are placed several small, oblong, slender leaves. Each flower is composed of five petals, nearly equal in size, heart-fashioned at the end, and a little bent. The cup is very small. The seeds are of an oval form, convex on one side, and flat on the other.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles two in each flower.

Authors speak of a larger and lesser Earthnut; but they differ only as varieties. There is but one species of this genus, and that is a native of Britain.

Earthnut.

Earthnut.

Bulbocastanum. Pl. 50. 1

The root is a tuberous lump, of the bigness of a chestnut, and of a sweet pleasant taste: it lies at about five inches depth; and the plant rises from it in a small white stalk. The root is brown on the outside, and white within.

The leaves are beautifully divided into slender parts.

The stalk is firm, upright, striated, and two feet high.

The flowers are small and white; and the seeds, when ripe, are blackish.

It is common in dry, hilly pastures, and flowers in August.

C. Bauhine calls it *Bulbocastanum majus*. Others, *Bulbocastanum majus*, and *minus*.

The root is eatable and wholesome.

G E N U S XII.

WATER DROPWORT.

CENANTHE.

THE flowers are disposed in small umbells, placed upon a few principal stalks, and many short ones at the subdivisions. There stand several short leaves at the base of the principal footstalks, and also of the subdivisions. Each flower is composed of five petals, but in an unequal manner; those at the edges having the petals larger, and split; those in the centre having them only heart-fashioned, and a little bent. The cup is large, and divided into five segments. The seeds are two: they are of an oval figure, rounded, and striated on one side, and plain on the other, and dented at the top.

Linnaeus places this among the *pentandria digynia*; the styles being two, and the threads five in each flower.

1. Common Water Dropwort.

Cenante vulgaris. Pl. 50. 2

The root is composed of numerous fibres, with small fleshy bulbs or tuberous parts connected to them.

The first leaves are small, and lightly divided into a few long, slender segments.

The stalk is upright, hollow, striated, and two feet high.

The leaves on this are divided into numerous, long, and slender segments; and are of a faint green.

The flowers are small and white, and the seeds are large and brown.

It is common by waters, and flowers in June.

C. Bauhine calls it *Cenante aquatica*. Others, *Filipendula aquatica*.

It is a diuretick and deobstruent, but is not in use at this time.

2. Lesser Water Dropwort.

Cenante minor triflora. Pl. 50. 3

The root is fibrous; and has a few oblong, tuberous pieces connected to the strings.

The first leaves are small, and divided into several long, slender segments, of a bluish green.

The stalks are weak, hollow, striated, very slender, and not more than ten inches high.

The leaves on these resemble those from the root, being composed of a few fine small irregular segments.

The flowers are small and white, and the principal stalks, which form the umbel, are only three: the subdivisions are more numerous.

The seeds are large and brown.

It is not uncommon about waters in our southern counties, and in some other places. It flowers in July.

Ray calls it *Cenante aquatica triflora*.

3. Hemlock Dropwort.

Cenante cicuta facie. Pl. 50. 4

The root is composed of numerous, long, thick, tuberous parts; and is of a very unpleasant taste, and full of a juice which turns yellow on coming to the air.

The first leaves are divided into numerous, broad, oblong, serrated segments; and are very large.

The stalk is striated, round, branched, and three feet high.

The leaves on these resemble those from the root, but they are smaller; and they are of a pale green.

The flowers are small, and the umbells of them moderately large.

It is common about the Thames side, and elsewhere by waters. It flowers in July.

C. Bauhine calls it *Cenante cherophylli foliis*; Others, *Cenante cicuta facie*.

The roots are the most terrible poison England produces.

4. Pimpernell Dropwort.

Cenante foliis pimpinella saxifragæ. Pl. 50. 5

The root is composed of long fibres, with a few tuberous lumps connected to them.

The first leaves are very elegantly divided into numerous, oblong, pointed parts; and are of a deep green.

The stalk is striated, branched, and a foot high.

The leaves on it are small, finely divided, and of a pale green.

The flowers are very little and white.

The seeds are brown.

We have it by the sides of our fen-ditches: It flowers in August.

J. Bauhine calls it *Cenante Stapholini folio*; a name copied by most others.

G E N U S

G E N U S XIII.

S I U M.

THE flowers are placed in rounded umbells, composed of extended flat parts on the subdivisions of the branches; and there are at the base of the principal footstalks, and of their subdivisions, several little leaves. Each flower is composed of five petals, of equal size, undivided at the top, and somewhat bent. The cup is very minute. The seeds are roundish, and striated, but flattened on one side.

Linnæus places this among the *pentandria digynia*; the threads being five, and the styles two in the flower.

1. Bastard Stone-Parley.

Sium foliis serratis. *Pl. 50. 6*

The root is long, slender, and white.

The first leaves are placed on long footstalks; and they are composed of numerous, short, indented segments, of a deep green.

The stalk is round, upright, slender, and branched, and of a shining green.

The leaves on it are divided into numerous segments, and serrated; and their colour is a beautiful green.

The flowers stand at the top of all the branches in little umbells: they are small and white.

The seeds are very small, striated, and brown; and they have a warm aromatick taste.

It is common under hedges, and flowers in August.

C. Bauhine calls it *Sison quad amonum officinis nostris*. Others, *Amonum officinarum*, and *Petro-jelinum Macedonicum Fuchsii*.

The seeds are good against flatulencies, and in nervous disorders.

2. Honewort.

Sium segetum. *Pl. 50. 7*

The root is long, slender, and furnished with a few fibres.

The first leaves are extremely beautiful: about four rise from the root; and they spread themselves on the ground: they are long, moderately broad, and regularly pinnated: each is composed of about seven pairs of pinnæ, with an odd one at the end; and these are elegantly serrated, and of a fine green.

The stalk is round, striated, and branched.

The leaves are placed alternately on it; and they are divided into narrow segments; but they have not the form or elegance of those at the root.

The flowers are small and white, and the seeds are striated and crooked.

It is common in corn fields, and on ditch-banks. It flowers in July.

Ray calls it *Sium arvense*. Others, *Sium segetale*, and *Selinum Sili foliis*.

A pulice of the leaves is said to be excellent against hard-swellings: it had its English name thence; *bene* being a term used by the country-people in some places for such swellings.

3. Great Water-Parley.

Sium aquaticum maximum. *Pl. 50. 8*

The root is composed of numerous fibres.

The first leaves are divided into small and fine segments; but these soon fade and perish: in their places appear large pinnated leaves.

The pinnæ are oblong, serrated, and sharp-pointed; and their colour is a bright green.

The stalk is round, upright, striated, branched, and two yards high.

The leaves on this are placed alternately; and they are pinnated and serrated, and of a pale green.

The flowers are small and white; and they are formed into large umbells.

The seeds are small and brown.

It is common about ditches, and flowers in July.

C. Bauhine calls it *Sium latifolium*. Others, *Sium aquaticum maximum*.

4. Common upright Water-Parley.

Sium erectum vulgare. *Pl. 50. 9*

The root is composed of numerous, long, and slender fibres.

The first leaves are large and pinnated: each is composed of several pairs of pinnæ, with an odd one at the end; and these are narrow, sharp-pointed, serrated, and of a pale green.

The stalk is upright, striated, branched, and two feet high.

The leaves are placed irregularly on it; and they are like those from the root.

The flowers are small and white; and they stand in large umbells at the tops of the stalks and branches.

It is common in watery places, and flowers in July.

C. Bauhine calls it *Sium sive Apium palustre foliis oblongis*.

5. Creeping Water-Parley.

Sium minus repens.

The root is small and fibrous.

The stalks are numerous, slender, and weak: they lie upon the ground, or rise very imperfectly from it; and they take root at the joints.

The leaves are pinnated; and the pinnæ are oblong, sharp-pointed, and serrated.

The flowers are small and white: they are disposed in little umbells; and are placed, not on the tops of the branches, as in others, but at the joints of the stalks.

The seeds are small and brown.

It is common in watery places, and flowers in June.

Ray calls it *Sium umbellatum repens*. Others, *Sium ad alas floridum*.

6. The

6. The least Water-Parley.

Sium minimum foliis variis. *Pl. 50. 10*

The root is composed of many small fibres.

The first leaves are divided into a multitude of extremely fine segments.

The stalks are round, striated, branched, and about six inches high.

The leaves are placed alternately on these; and they are formed of broad, short, and dentated segments; of a pale green, altogether unlike those which rise first from the root.

The flowers are small and white; and they stand on the tops of the branches in little umbells.

The seeds are striated and brown.

It is common in shallow waters, and flowers in June.

Ray calls it *Sium pusillum foliis variis*. Others, *Sium minimum umbellatum foliis variis*.

7. Long-leaved Water-Parley.

Sium folio angusto longiore. *Pl. 50. 11*

The root is long, thick, and furnished with many fibres.

The leaves that first rise from it are large, and very beautiful: they are divided by threes into very long, narrow, and elegantly serrated segments.

The stalk is round, upright, striated, branched, and four feet high.

The leaves stand irregularly on it; but they are very beautiful, resembling those from the root.

The flowers are small, and placed in large umbells.

The seeds are striated and brown.

It is common about our fen-ditches, and elsewhere in watery places. It flowers in August.

C. Bauhine calls it *Sium eruce-folio*. Others, *Sium olusatris-folio*. Ray calls it *Cicuta aquatica*. He has given many accounts of persons perishing by eating it.

G E N U S XIV.

BURNET SAXIFRAGE.

PIMPINELLA SAXIFRAGA.

THE flowers are disposed in moderately large and rounded umbells, upon divided and subdivided branches; and there are no leaves by way of cup, under either the principal branches or the subdivisions. Each flower is composed of five nearly equal petals; and they are heart fashioned at the ends, and bent. The cup is very small. The seeds are long and slender, striated on the back, and polished.

Linnæus places this among the *pentandria digynia*; the threads being five, and the styles two in each flower.

1. Great Burnet Saxifrage.

Pimpinella saxifraga foliis variis. *Pl. 50. 12*

The root is long, slender, and furnished with a few fibres.

The leaves that first rise from it are pinnated in a very elegant manner: each is formed of three or four pairs of roundish pinnæ, with an odd one at the end; and these are serrated, and of a fine green.

The stalk is upright, slender, striated, and divided into branches.

The leaves on these are placed irregularly; and they are divided into five narrow segments.

The flowers are white, and very small.

The seeds are small and brown.

It is found under warm hedges in our midland counties, and flowers in August.

C. Bauhine calls it *Pimpinella saxifraga major umbella Candida*.

2. Small Burnet Saxifrage.

Pimpinella saxifraga minor. *Pl. 50. 13*

The root is long, slender, white, and hung about with a few straggling fibres.

The stalk is upright, but slender, divided into branches, and a foot and half high.

The leaves stand alternately on it; and they are divided into small segments, and of a faint green.

Nº XLI.

The flowers are little and white; and the seeds are striated and brown.

It is common in dry pastures, and flowers in July.

C. Bauhine calls it *Pimpinella saxifraga minor*; a name most others have copied.

The roots of this plant are powerfully diuretick: they are good against obstructions of the viscera.

The seeds are carminative, and good in cholicks. The root is best taken in infusion; and the seeds in powder, five grains for a dose.

3. Jagged-leaved Burnet Saxifrage.

Pimpinella saxifraga foliis laciniatis.

The root is long, slender, white, and furnished with a few fibres.

The first leaves are divided and jagged; and they are of a pale green.

The stalk is slender, upright, and not much branched.

The leaves on it stand alternately, and are divided into many narrow segments.

The flowers are small and white.

The seeds are small, brown, and sharp to the taste.

It is common in dry pastures, and flowers in August.

Ray calls it *Pimpinella saxifraga hircina minor*.

5 M

4. Tall

4. Tall Burnet Saxifrage.

Pimpinella saxifraga elatior.

The root is long, slender, and furnished with a few fibres.

The first leaves are large, broad, and divided into many small, serrated, and sharp-pointed segments.

The stalk is round, upright, and four feet high; and toward the top it is parted into many branches.

G E N U S XV.

C A R A W A Y.

C A R U M.

THE flowers are disposed in moderately large umbells, placed on divided and subdivided branches; and there are no leaves at the base, either of the principal branches, or of their subdivisions. Each flower is composed of five petals, which are nipped at the end, and turned down. The cup is very small; and the seeds are oblong, slender, and striated.

Linnaeus places this among the *pentandria digynia*; the threads in the flower being five, and the styles two. There is but one known species of this genus.

The Caraway Plant.

Carum. Pl. 50. 14

The root is long, thick, white, and of a sweet, but acrid taste.

The first leaves are very finely divided into segments; and they are of a fresh green, and smooth.

The stalk is round, striated, and toward the top divided into several branches.

The leaves stand alternately on it; and are like those from the root, only smaller.

The leaves on this are divided into a few long and narrow segments, scarce at all serrated, and of a faint green.

The seeds are large, and they are sharp-tasted.

It is common in our western counties, and flowers in July.

Ray calls it *Smyrnum tenuifolium nostras*. Others, *Pimpinella saxifraga bircina maxima*.

The virtues of these are the same with those of the common small kind, but in an inferior degree.

G E N U S XVI.

S E A - P A R S L E Y.

L E V I S T I C U M.

THE flowers are disposed in large umbells upon divided and subdivided branches: at the base of the principal branches there stand about seven leaves, and at the base of the subdivisions fewer. Each flower is composed of five petals; and these are oblong, and striated on one side. The leaves are divided by threes.

Linnaeus places this among the *pentandria digynia*; the threads in the flower being five, and the styles two.

He joins it in one genus with the *ligusticum*, or common lovage; but the leaves express the difference sufficiently.

Of this genus, thus distinguished, there is but one known species, and that is a native of Britain:

Scottish Sea-Parley.

Levisticum foliis biternatis. Pl. 50. 15

The root is long, slender, and furnished with a few fibres.

The first leaves are numerous, and supported on long footstalks, which are purplish at the base.

The stalk is round, striated, and upright; three feet high, and toward the top divided into numerous branches.

The leaves are placed irregularly on it; and both these and those which grow from the roots are large and divided into numerous, long, and slender segments, in threes.

The flowers are small and white.

The seeds are large and brown.

It is common on the coasts of Scotland, and flowers in August.

Ray calls it *Ligusticum Scoticum apii folio*. Others, *Apium Scoticum*.

G E N U S

G E N U S XVII.

S M A L L A G E.

A P I U M.

THE flowers are disposed in moderately large umbells, on divided and subdivided branches: these have at the base of the division one small leaf. Each flower is composed of five petals; and they are equal in size, of a rounded form, and somewhat bent. The cup is so minute, that it can scarce be seen. The seeds are two: they are of an oval form, and striated on one side.

Linnaeus places this among the *pentandria digynia*; the threads in the flower being five, and the styles two. He joins the common parsley or *petroselinum* under the name *apium*; but they are properly distinct.

Common Smallage.

Apium vulgare. Pl. 50. 16

The root is long, thick, and white; sometimes simple, sometimes divided, and of a pleasant taste.

The leaves are pinnated and large: they are composed each of three or four pairs of pinnae, with an odd one at the end; and these are broad, serrated, and in a manner divided into three parts.

The stalk is thick, striated, branched, and two feet high.

The leaves on these resemble those from the root; but they are smaller.

The flowers are small and white; and they

stand in thick umbells at the divisions of the branches.

The seeds are brown.

It is common about waters, and flowers in July.

C. Bauhine calls it *Apium palustre seu officinarum*.

This plant, cultivated in gardens, affords what we call *celeris*, by some distinguished under the name of *apium dulce*, as if a different species.

The roots of *smallage* are diuretick; and are good against the gravel, and in obstructions of the viscera. The best way of giving them is in a strong decoction.

The seeds are warm and carminative, and also diuretick in a very considerable degree.

G E N U S XVIII.

H E M L O C K.

C I C U T A.

THE flowers are disposed in large umbells, upon divided and subdivided branches. Each flower is composed of five petals; and they are of an equal size, bent down, and heart-fashioned. The seeds are rounded, striated on one side, and plain on the other.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles two in each flower. But he has introduced great confusion by his management of this genus. He divides the common and the *small hemlock*, not as species, but into two genera; and he does not give the name of *cicuta* to either of them: the genus comprehending the common hemlock is called *conium*; and that comprehending the *small hemlock*, *cicuta*. The name *cicuta* is given to a genus quite distinct from both, including the *long-leaved water parsnip*.

The characters of this genus are not contrary to any of his distinctions: they belong both to the common and the *small hemlock*; and they are properly a generic mark.

1. Common Hemlock.

Cicuta vulgaris. Pl. 50. 17

The root is long, thick, and white.

The first leaves are extremely large, and of a dark, blackish green: they are divided into innumerable small parts, and serrated at the edges.

The stalk is firm, upright, round, and six feet high: it is of a dark green colour, stained all over with spots of purple.

The leaves are placed irregularly on it; and they are very large, and like those from the root: they are deeply divided, and of a dark green.

The flowers are small and white; and they stand in large umbells.

The seeds are brown.

It is common in hedges, and flowers in July.

C. Bauhine calls it *Cicuta major*.

It is understood to be a poisonous plant; but there does not appear any thing certain on that head. Many authors of credit affirm that it is innocent.

2. Small Hemlock.

Cicuta minor. Pl. 50. 18

The root is long, slender, white, and furnished with a few fibres.

The first leaves are divided into numerous small parts, which are deeply serrated, of a pale green, and very like those of the common parsley.

The stalk is round, upright, green, and a yard high.

The leaves on this are finely divided in the same

fame manner as those from the root, and they are of the same pale green.

The flowers grow at the tops of the branches in little umbells, surrounded with numerous, long, and slender leaves, forming a kind of general cup.

The seeds are small and striated.
It is common on ditch-banks, and in garden-ground, and flowers in June.
C. Bauhine calls it *Cicuta minor petroselinio similis*. Others, *Cicutaria*, and *Cicuta fatua minor*.

G E N U S XIX.

WATER HEMLOCK.

P H E L L A N D R I U M

THE flowers are disposed in large umbells on divided and subdivided branches: there are no leaves at the base of the first division; but seven stand at the bottom of each of the subdivisions: these are long and sharp-pointed. Each flower is composed of five petals: they are pointed, a little nicked at the top, and bent down. The seeds are oval, and smooth. The stalk is very thick and firm.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles two in each flower.

Water Hemlock.

Phellandrium aquaticum. *N^o 39. 1*

The root is composed of numerous very long fibres.

The first leaves are large, and divided into a multitude of small, slender parts, and split as it were at the ends: they are of a pale green.

The stalk is a yard high, and of a vast thickness: it is of a pale green; and toward the top divides into numerous branches.

The leaves on this resemble those from the root, and are of a faint green.

The flowers are small and white; and they stand in great umbells at the tops of the branches.

The seeds are large and brown.

It is a native of the waters, and loves a soft, muddy bottom. We have it in all our fen-counties, and in some other places. It flowers in June.

C. Bauhine calls it *Cicutaria palustris tenuifolia*. Others, *Cicuta palustris*, and *Phellandrium*.

G E N U S XX.

M E A D O W - S A X I F R A G E,

S E S E L I.

THE flowers are disposed in umbells, on divided and subdivided branches. There are no leaves at the base of the principal branches; but at the places of their subdivision there stand several, which are long and slender. Each flower is composed of five petals; and they are heart-fashioned, and a little bent. The cup is very minute. The seeds are oval, and convex, striated on one side, and smooth on the other.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles in each flower two.

DIVISION I. BRITISH SPECIES.

Meadow-Saxifrage.

Seseli pratense vulgare. *N^o 39. 2*

The root is long, thick, and hung with a few fibres: it is brown on the outside, white within, and of an acrid taste.

The first leaves are placed on long footstalks: and are large, and of a deep green: they are divided into very small, narrow segments.

The stalk is upright, striated, and toward the top divided into branches: it is of a yellowish green, and two feet high.

The flowers stand at the tops of the branches; and are small and yellowish.

The seeds are brown, and of an acrid taste.

The roots of this plant are diuretick; and the seeds carminative, both in a very eminent degree.

It is common in our meadows, and flowers in June.

J. Bauhine calls it *Saxifraga Anglorum*. Others, *Seseli pratense*, and *Silaus Anglicus*.

G E N U S

DIVISION II. FOREIGN SPECIES.

French Meadow-Saxifrage.

Seseli pratense Monspessulanum. *N^o 39. 3*

The root is long and thick, brown on the outside, white within, and of an aromatick taste: it is usually divided at the top into small heads; and they are edged with a hairy substance, formed of the fibres of decayed stalks.

The first leaves are large, and of a pale green; and they are divided into numerous, small, pointed segments.

The stalk is striated, and a yard high.

The leaves on it resemble those from the root; but they are smaller; and they are of a yellowish green colour.

The flowers are small and white; and the seeds, when ripe, are brown. It is common in pastures in France.

C. Bauhine calls it *Seseli pratense*.

G E N U S XXI.

S A M P I R E.

C H R I T H M U M.

THE flowers are disposed in large hemispherical umbells, on divided and subdivided branches: There are long and narrow leaves at the base, both of the larger and smaller divisions. Each flower is composed of five petals; which are of an oval figure, and a little bent down. The cup is very small. The seeds are oblong, striated, and rounded on one side.

Linnaeus places this among the *pentandria digynia*; the threads in the flower being five, and the styles two.

Fleshy-leaved Crithmum.

Crithmum foliis crassis. *N^o 39. 4*

The root is long, thick, fleshy, and of a very agreeable aromatick taste.

The first leaves are very large; and they are divided into numerous, small, but thick and fleshy segments, of a pale green colour; and of a saltish, but not disagreeable taste.

The stalk is round, thick, striated, and spreading; and it is two feet high.

The leaves resemble those from the root; and they are placed on the stalk, irregularly.

The flowers are small and yellow.

The seeds are brown.

It is common about our sea-coasts, and flowers in July.

C. Bauhine calls it *Crithmum sive feniculum marinum minus*.

The leaves make an excellent, agreeable, and wholesome pickle.

G E N U S XXII.

F E N N E L.

F E N I C U L U M.

THE flowers are disposed in large umbells, on divided and subdivided branches, without any leaves under either. Each flower is composed of five petals; and they are oblong, sharp-pointed, and bent. The cup is very minute; and the seeds are oblong, striated, and naked.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles two in each flower.

This author takes away the received name, not allowing *fennel* to be a distinct genus, but accounting it a species of *dill*. The difference is however obvious; the seeds of *dill* having a membranaceous edge, and those of *fennel* being naked.

DIVISION I. BRITISH SPECIES.

Common Fennel.

Feniculum vulgare. *N^o 39. 5*

The root is long, thick, white, and furnished with numerous fibres.

The first leaves are very large, and of a dark green: they are divided into innumerable fine segments.

The stalk is upright, round, branched, and four feet high.

The leaves on this resemble those from the root; and are of the same green colour.

The flowers are small and yellow.

The seeds are brown, and of a sharp aromatick taste.

It is common wild in our northern counties, and every where in gardens. It flowers in July.

C. Bauhine calls it *Feniculum vulgare Germanicum*. Others, *Feniculum vulgare*.

It is used at our tables; and is also excellent in medicine. The root is a powerful and safe diuretick; and a decoction of it is good in the jaundice, and all obstructions of the viscera.

DIVISION II. FOREIGN SPECIES.

Sweet Fennel.

Faniculum dulce.

The root is long, thick, and white.
The first leaves are of a pale green; and they are divided, like those of common fennel, into numerous, fine segments; but they are not so large.
The stalk is round, upright, branched, and a yard high.

The leaves are placed irregularly on it; and they resemble those from the root: they are of the same fine division, and the same faint green.

The flowers are larger than those of common fennel, and of a paler yellow.

The seeds are large, pale-coloured, and of a sweet taste.

It is a native of Italy, and flowers in July.

C. Bauhine calls it *Faniculum dulce*; a name copied by all other writers.

Its virtues are the same with those of common fennel; but the seeds are milder or less acrid: they are therefore more used in medicine.

GENUS XXIII.

ROCK-PARSLEY.

Selinum.

THE flowers are disposed in moderately large umbells, on divided and subdivided branches.

Each flower is composed of five oblong, narrow petals; and they are bent downwards. The cup is small, and divided into five parts; and the seeds are of an oval form.

Linnaeus places this among the *pentandria digynia*; the threads in the flower being five, and the styles two.

Of this genus there is but one known species, and that is a native of Britain.

Rock-Parsley.

Selinum.

The root is long and slender, and hung about with several fibres.

The first leaves are small, and of a pale green; and they are in a very elegant manner divided into narrow, and pointed segments.

The stalk is striated, round, upright, very much branched, and about a foot high.

The leaves on it are placed irregularly; and

they are, like the others, divided into small segments.

The flowers stand at the tops of all the branches; so that the plant appears covered with them: they are small and yellow.

The seeds are brown.

We have it in our western counties very common.

C. Bauhine calls it *Pucedanum minus*. Clusius, *Selinum montanum pumilum*.

GENUS XXIV.

CARROT.

Daucus.

THE flowers are disposed in large umbells, which grow hollow when they are fallen; and there are circles of small leaves, both under the whole umbel, and at the bases of its subdivisions. Each flower is composed of five petals, of irregular size; the outer ones being larger than the inner; and all of them are heart-fashioned, and turned back. The cup is very minute. The seeds are hairy.

Linnaeus places this among the *pentandria digynia*; the threads in the flower being five, and the styles two.

1. Wild Carrot, called Mountain Stone-Parsley.

Daucus apium petræum album dictus.

The root is long and thick, of an acrid taste, but not very disagreeable; of a tender substance, white, and hung with many fibres.

The first leaves are large, and of a deep green; and they are composed of numerous, broad, serrated pinnae.

The stalk is round, slender, upright, and toward the top parted into many branches.

The leaves on it are divided into narrower seg-

ments than those from the root; and they are of a paler colour.

The flowers are small and white. The seeds are brown and hairy, and stand in a hollow tuft.

It is found on dry, hilly ground, but not common.

J. Bauhine calls it *Apium petræum sive montanum album*. C. Bauhine, *Daucus apii folio*.

2. Common Carrot.

Daucus vulgaris.

The root of the carrot is well known.

The leaves are large, and divided in a handsome manner into numerous small segments: and they are lightly hairy, and of a pleasant green.

The stalk is round, upright, and five feet high.

The leaves on it resemble those from the root; but they are smaller.

The flowers stand at the tops of the branches in large umbells; and they are little and white: sometimes they are lightly tinged with red.

The seeds are light, hairy, and of a pale brown. It is found wild in Scotland near the sea-coasts, where the root is yellow and hard; but the plant in all things resembles the garden kind. This is the original carrot: the red-rooted kind is only a variety, though some have named it as a distinct species.

The root is nourishing and wholesome. The seeds are diuretick.

3. Wild Carrot.

Daucus sylvestris.

The root is long and white, of a sweetish, but somewhat acrid taste, and hung with a few fibres.

The leaves are large, and of a pale green, finely divided into segments, and hairy.

The stalk is two feet and a half high, and is divided into many branches.

The leaves on it resemble those from the root; but they have fewer divisions.

The flowers stand at the tops of all the branches

in little, round umbells; and they are small and white.

The seeds are hairy; and they form a hollow bed, like the nest of a bird.

It is common by way-sides, and flowers in July.

C. Bauhine calls it *Daucus sylvestris tenuifolia*. Dioscoridis.

The seeds of this plant are excellent in the gravel, and in obstructions of the viscera; in the beginnings of dropsies, and in the jaundice. They operate powerfully by urine.

4. Shining-leaved Wild Carrot.

Daucus maritimus foliis lucidis.

The root is long, slender, white, and hung with fibres.

The first leaves are numerous, and divided into beautiful segments: they are of a fine green, and of a glossy surface.

The stalk is upright, branched, and two feet high: its leaves stand alternately, and resemble those from the root.

The flowers are small and white; and the seeds are rough, and of a pale brown.

We have it on our southern coasts. It flowers in July.

Ray calls it *Daucus maritimus lucidus*.

DIVISION II. FOREIGN SPECIES.

Candy Carrot.

Daucus Creticus.

The root is long, slender, and white.

The first leaves are deeply divided into a multitude of segments; which are very narrow and pointed; and the whole leaf is of a pale green, and hairy.

The stalk is ribbed, upright, two feet high, and divided into numerous branches.

The leaves on it resemble those from the root, but that they are smaller.

The flowers are small and white.

The seeds are oblong, hairy, and of a very pale colour.

It is a native of the Greek islands, and flowers in July.

C. Bauhine calls it *Daucus foliis fariculi tenuissimis*. Others, *Daucus Creticus*.

The seeds are used in medicine: they are diuretick and deobstruent, and are ingredients in many compositions. Nature varies a little in the characters of this plant; and Linnaeus makes it a species of another genus, but the seeds shew it a *daucus*.

GENUS XXV.

BASTARD PARSLEY.

Caucalis.

THE flowers are placed in little umbells, on a few branches, with more numerous subdivisions: there are some narrow leaves, both at the base of the larger branches, and of the smaller. Each flower is formed of five petals; which are somewhat bent, and split at the top. The cup is divided into five pointed segments. The seeds are of an oval, or somewhat oblong figure, and are covered with a kind of prickles.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles two in each flower.

1. Purple-flowered great Bastard Parsley.

Caucalis major foliis rubentibus.

The root is long, slender, and white.

The first leaves are large, and of a pale green:

they are beautifully divided in a pinnated manner into short segments, which are serrated and sharp-pointed.

The stalks are two feet high, branched, and striated, and of a pale green.

The

The leaves on them resemble those from the root; but they are smaller: they are smooth on the upper side, and hairy underneath.

The flowers stand at the tops of the branches in little umbells; and they are of a pale red.

The seeds are large and rough.

It is found in our corn-fields, but is not common. It flowers in July.

C. Bauhine calls it *Caucalis arvensis ecbinata latifolia*. Others, *Lappula*.

2. Fine-leaved Bastard Parsley.

Caucalis tenuifolia flosculis rubentibus.

The root is long, slender, and hung with a few fibres.

The first leaves are of a pale green, and divided into numerous small segments.

The stalk is upright, and divided into many branches, and is two feet high.

The leaves on it resemble those from the root; but they are smaller, and have fewer segments.

The flowers are small and red.

The seeds are little and rough, sticking to any thing they touch.

It is common in our corn-fields in many parts of the kingdom, and flowers in August.

C. Bauhine calls it *Caucalis arvensis ecbinata parvo flore et fructu*. Others, *Lappula Canaria*.

3. Jagged-leaved Bastard Parsley.

Caucalis foliis laciniatis.

The root is long, white, and furnished with many fibres.

The first leaves are large, and divided into several branches, which are again cut and jagged into smaller parts.

The stalk is upright, and very much branched.

The leaves on it are divided into numerous, long, slender parts; and are of a fine green.

The flowers are small and red.

The seeds are oblong, and very rough.

It is found in corn-fields in our southern counties, and flowers in July.

Ray calls it *Echinophora laciniata*.

4. Hedge-Parsley. *Pl. 39. 9*

Caucalis minor flosculis rubentibus.

The root is very long, slender, and white.

The first leaves are divided into long, narrow, sharp-pointed, serrated segments; and are of a deep green.

The stalk is upright, and divided into many branches.

The leaves on it resemble those from the root; but they have fewer divisions.

The flowers stand in little umbells at the tops of the branches; and they are small and red.

The seeds are oblong, rough, small, and brown.

It is common in hedges, and flowers in June.

C. Bauhine calls it *Caucalis semine aspero flosculis rubentibus*.

5. Low, branched Bastard Parsley.

Caucalis humilior ramosa.

The root is long, slender, and furnished with some straggling fibres.

The first leaves are divided into a number of oblong, serrated, and sharp-pointed segments; and they are of a deep green.

The stalk is a foot high, and divided into numerous branches.

The leaves on it resemble those from the root; they are divided into longer segments.

The flowers are large, and of a pale red.

The seeds are rough and brown.

It is common in the corn-fields of Suffex.

Ray calls it *Caucalis segetum minor antrifco hispido similis*.

6. Knotted Stone Parsley. *Pl. 39. 10*

Caucalis nodosa ecbinata femine.

The root is long and slender.

The first leaves are small, and of a dusky green: they are divided in a pinnated manner into many serrated, and pointed segments.

The stalks are numerous, and a foot long; but they generally trail upon the ground: they are branched, and of a pale green.

The leaves on these resemble those from the roots; but they are less.

The flowers are placed in little umbells; and they are small and white: these umbells are not placed at the tops of the branches, but at the joints of the stalks, where they adhere by a very short footstalk; so that they seem to grow to it.

The seeds are brown, and very rough.

It is common in corn-fields and under hedges, and flowers in June.

C. Bauhine calls it *Caucalis nodosa ecbinata femine*.

The virtues of these plants are not known.

7. Hemlock-leaved Bastard Parsley.

Caucalis cicutæ foliis pallidioribus.

The root is long, slender, white, and hung with several fibres.

The first leaves are large, and composed of innumerable segments; which are soft to the touch, of a remarkable pale green, and hairy.

The stalk is round, upright, branched, and also of a faint green.

The leaves on it resemble those from the root; but they are divided into smaller segments.

The flowers are placed in little umbells; not at the tops of the stalks, but at the divisions; and they are small and white.

The seeds are oblong, rough, and pointed.

It is common every where under hedges, and flowers in June.

C. Bauhine calls it *Myrrhis sylvestris seminibus asperis*. Others, *Cerofolium aquicolorum*.

GENUS

GENUS XXVI.

PRICKLY SAMPIRE.

ECHINOPHORA.

THE flowers are disposed in moderately large umbells, with little leaves at the divisions and subdivisions of the branches. Each flower is composed of five oblong, heart-fashioned, and bent petals. The cup is small, and is divided into five segments. The seeds are rough, and the leaves of the plant are prickly.

Linnaeus places this among the *pentandria monogynia*; the threads being five, and the styles two in each flower.

This author does not, in his *Genera Plantarum*, allow it to be a distinct genus, but makes it a kind of *caucalis*. In his species he makes it of a distinct genus, but there joins a *caucalis* with it: in both erroneous. There is but one known species, properly distinguished, and that is a native of Britain.

Prickly Sampire.

Echinophora. Pl. 39. 11

The root is long and thick, and furnished with many fibres.

The first leaves are very broad and spreading: they are divided into innumerable small, oblong segments, in an irregularly pinnated manner; and these are prickly at the end.

The stalk is very thick, round, striated, upright, and divided into numerous branches.

The leaves on these resemble those from the root, and are in the same manner prickly.

The flowers are small and white; and they stand in umbells, terminating the tops of the branches.

The seeds are oblong and rough.

The root of this plant is of a very agreeable taste, and fleshy substance.

It is common on our sea coasts, and flowers in August.

C. Bauhine calls it *Critbum maritimum spinosum*.

GENUS XXVII.

CORIANDER.

CORIANDRUM.

THE flowers are disposed in small umbells. There are no leaves at the base of the first division, but three at each of the subdivisions of the branches. Each flower is composed of five petals; and they are of unequal size, but all bent backward, and heart-fashioned. The cup is small, and divided into five segments. The seeds are hemispherical.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles two in each flower.

DIVISION I. BRITISH SPECIES.

Common Coriander.

Coriandrum vulgare. Pl. 39. 12

The root is long, slender, white, and furnished with a few fibres.

The first leaves are divided in a pinnated manner, into many broad, serrated segments.

The stalk is two feet high, and has many branches.

The leaves on it are divided into small, narrow segments, and of a pale green: when bruised they have a very strong and disagreeable smell.

The flowers stand at the tops of the branches;

and are small and white, with a very faint bluish of red.

The seeds are large, and of a pale brown.

We have it in our western counties in dry places, and by road-sides; perhaps native, perhaps from seeds casually dropt. It flowers in July.

C. Bauhine calls it *Coriandrum majus*. Others, *Coriandrum vulgare*.

The seeds are cordial, and good against flatulences; and they are greatly recommended by their agreeable taste.

DIVISION II. FOREIGN SPECIES.

Small Sweet Coriander.

Coriandrum minus. Pl. 39. 13

The root is very long, slender, and white.

The first leaves are small, and of a pale green; N° 41.

and they are deeply divided into slender segments.

The stalks are numerous and weak: they are about eight inches high; and they lie spread upon the ground.

The leaves on these resemble those from the root; 5 O

root; and they are of a pale green: when bruised they have no ill smell.
The flowers are small and white; and the seeds are very large and brown.

It is a native of the Greek islands, and flowers in July.
C. Bauhine calls it *Coriandrum minus testiculatum*. Others, *Coriandrum minus odorum*.

G E N U S XXVIII.

H A R E S E A R.

B E U P L E U R U M.

THE flowers are placed in umbells, on divided and subdivided branches. There are no leaves at the base of the larger branches, but there are under their subdivisions. Each flower is composed of five petals; and these are small, heart-fashioned, and turned back at the ends. The cup is very small, and has five dents. The seeds are of an oblong, oval form, striated on one side, and plain on the other. The leaves are entire and undivided.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles two in the flower.

DIVISION I. BRITISH SPECIES.

1. Thoroughwax. *Pl. 59. 14*
Beupleurum perfoliatum.

The root is long, slender, white, and hard.
The stalk is round, upright, and toward the top divided into several branches: it is of a yellowish colour, and of a very firm substance.

The leaves stand singly at considerable distances; and are of a roundish, but somewhat oblong shape, of a firm substance, and a beautiful green.

The stalk runs through them: they are not at all indented at the edges, but are somewhat pointed at the upper end.

The flowers are small, and of a beautiful yellow: they stand in thick tufts at the tops of the branches.

The seeds are small and blackish.

It is common in the corn-fields of some parts of England, and flowers in July.

C. Bauhine calls it *Perfoliata vulgarissima*.

Others, *Perfoliata vulgaris*. The more correct writers, *Beupleurum perfoliatum*.

2. Small Hares-Ear.

Beupleurum minimum.

The root is long, slender, and white.

The stalks are numerous, and very small: they are a foot and half high, and are divided toward the top into a few branches.

The leaves stand alternately on them; and they are long, narrow, grassy, and of a pale green.

The flowers stand on very small umbells at the tops of the stalks, and on footstalks rising from the bosoms of the leaves: they are little and white.

The seeds are small, and dark-coloured.

We have it in dry pastures, and by road-sides in Essex. It flowers in June.

C. Bauhine calls it *Beupleurum angustifolium folio*. Others, *Beupleurum minimum*.

DIVISION II. FOREIGN SPECIES.

Common Hares-Ear.

Beupleurum vulgare. Pl. 59. 15

The root is small, and furnished with numerous fibres.

The first leaves are oblong, and very broad, undivided, and rounded at the ends.

The stalk is round, upright, and two feet high.

The leaves stand alternately on it; and they are oblong, and moderately broad, of a bluish green, and undivided.

The flowers are small and yellow.

The seeds are brown and acrid.

It is a native of Germany, and other parts of Europe, and flowers in June.

C. Bauhine calls it *Beupleurum vulgatifimum*.

G E N U S XXIX.

S A N I C L E.

D I A P E N S I A.

THE flowers are placed in little umbells on branches, subdivided into numerous very short ones, with a few leaves underneath. Each flower is composed of five petals; and they are split at the end, and bent. The cup is very minute. The seeds are convex, and rough on one side, and plain on the other.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles two in each flower.

Common

Common Sanicle.

Diapensia vulgaris. Pl. 59. 16

The root is black, and of an acrid taste.

The first leaves are small, and of a deep shining green. They are placed on red footstalks; and they are of a rounded form, divided into five principal parts, and ferrated at the edges.

The stalk is round, upright, a foot high, and not much branched.

The leaves on it in some degree resemble those from the root; but they are divided into fewer

parts; and these are sharper, and more ferrated. The flowers are small; and they are white, with a faint tinct of redish.

The seeds are large and rough.

It is common in our woods, and flowers in August.

C. Bauhine calls it *Sanicula officinarum*. Others, *Diapensia*.

The root is astringent, and good against hæmorrhages. The leaves are recommended in vulnerary potions.

G E N U S XXX.

M A R S H P E N N Y W O R T.

H Y D R O C O T Y L E.

THE flowers are disposed four upon a stalk, with a little umbell in the centre. Each is composed of five petals, of an oval figure, but sharp-pointed, and spread open. The cup is very minute. The seeds are half round, and small.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles two in each flower.

It is truly an umbelliferous plant, though a very singular one.

Marsh Pennywort.

Hydrocotyle. Pl. 59. 17

The root is fibrous.

The stalks are numerous, round, jointed, weak, and of a pale green: they run upon the surface of the ground, and take root at the joints.

The leaves stand singly on slender footstalks; and they are round, dentated at the edges, and of a pale green.

The flowers are small and white: they stand

in very small tufts, rising from the stalks, with the leaves.

The seeds are small and brown.

It is common in damp pastures, and flowers in June.

C. Bauhine calls it *Ranunculus aquaticus cotyledonis folio*. Others, *Cotyledon palustre*, and *Hydrocotyle*.

The farmers have an opinion that it gives their sheep the rot; whence they call it *white rot*.

G E N U S XXXI.

E R Y N G O.

E R Y N G I U M.

THE flowers are disposed in a singular kind of umbells, surrounded with many leaves at the base, and separated by films. The umbells are of a convex or conic form. Each flower is composed of five petals; which are oblong, bent at the base, and marked with a line all along each of them. The cup is large, and divided to the base into five segments. The seeds are two; and they are oblong and rounded.

Linnaeus places this among the *pentandria digynia*; the threads being five, and the styles two in each flower.

1. Common Eryngo. *Pl. 59. 18**Eryngium vulgare Mediterraneum*.

The root is extremely long, slender, brown, of a sweet and very agreeable taste; and it has a hard fibre in the centre.

The stalk is round, upright, tough, and toward the top is divided into numerous branches.

The leaves are large: they are placed irregularly; and they are divided deeply into sharp and ferrated segments.

The flowers are small and white.

The seeds are of a dark brown.

We have it in our midland counties plentifully. It flowers in July.

C. Bauhine calls it *Eryngium vulgare et Camerarii*. Others, *Eryngium campestre*.

The root is an excellent medicine in disorders of the breast and lungs. The confectioners preserve it with sugar; and that way it has great virtues. It is also given in decoction. It operates by urine when given in this manner, and is good against obstructions of the viscera, and in the jaundice.

2. Sea-Eryngo.

Eryngium marinum. Pl. 59. 19

The roots are very long, tough, and creeping.

Ths

The stalk is round, firm, of a bluish green, and divided into a vast many branches.

The leaves are placed irregularly on it; and they are broad, deeply serrated, sharp-pointed, and prickly.

The flowers stand in thick tufts; and they are small and white.

The seeds are brown.

It is a native of our sea-coasts, and flowers in June.

C. Bauhine calls it *Eryngium maritimum*. Our people, *Sea-kelly*.

SERIES II.

FOREIGN GENERA.

Those of which no species is naturally wild in this country.

GENUS I.

HERCULES ALLHEAL.

PANAX.

THE flowers are disposed in large umbells; and each is composed of five petals, which are nearly equal in size, and bent and heart-fashioned at the top. The cup is very small, and has five divisions. The seeds are large, and edged with membranes in four ridges.

Linnaeus places this among the *pentandria digynia*; but he does not allow it to be a distinct genus. He makes it a kind of *lasewort*.

Great Hercules Allheal.

Panax foliis oblique cordatis. *Pl. Co. 1*

The root is long, and very thick.

The first leaves are very large, and of a deep green: they are composed of numerous pinnæ; which are sharp-pointed, and irregularly heart-fashioned at the base; and are placed on divided ribs.

The stalk is round, upright, and six feet high.

The leaves on this resemble the others, but they are smaller.

The flowers stand in large umbells, and are yellow.

The seeds are large and brown.

It is a native of the warmer parts of Europe, and flowers in July.

C. Bauhine calls it *Panax pastinacæ folio*. Others, *Panax Heracleum majus*.

GENUS II.

LIBANOTIS.

THE flowers are placed in large, but round umbells; and each is composed of five petals, which are nearly equal in size, and are heart-fashioned and bent. The cup is very small. The seeds are oval, striated, and rough.

Linnaeus places this among the *pentandria digynia*, as the former; but he makes it a species of another genus.

Black Libanotis.

Libanotis umbella hemispherica. *Pl. Co. 2*

The root is very large, and furnished with a few fibres.

The first leaves are broad, and spreading: they are formed of a multitude of small parts, joined to a divided rib; and these are sharp-pointed, and serrated.

The stalk is round, thick, divided at the top into several branches, and four feet high.

The leaves on it resemble those from the root, but they are smaller.

The flowers stand in vast hemispherical umbells; and are white, with a faint tinge of purplish.

The seeds are large and rough.

It is a native of Germany, and flowers in August.

C. Bauhine calls it *Daucus montanus apii folio major*. Others, *Libanotis nigra Theophrasti*.

GENUS III.

DILL.

ANETHUM.

THE flowers stand in large umbells: each is composed of five petals; and they are bent, and not split at the top. The cup is very minute; but it has five divisions. The seeds are of an oval figure, and edged with membranes.

Linnaeus places this among the *pentandria digynia*; and he joins it in the same genus with *fennel*, from which it differs in the seeds.

Common Dill.

Anethum vulgare. *Pl. Co. 3*

The root is long, slender, and hung with a few fibres.

The stalk is round, striated, and four feet high.

The leaves stand at small distances; and both these and those from the root are divided into a multitude of very minute segments.

The flowers stand in large umbells at the tops

of the branches; and they are small and yellow.

The seeds are large and brown.

It is a native of Spain, and flowers in July.

C. Bauhine calls it *Anethum hortense*. Others, *Anethum vulgare*.

The seeds are warm and carminative. They are good against flatulences: they operate by urine, and they strengthen the stomach.

GENUS IV.

THASPIA.

THE flowers are placed in great umbells at the tops of the stalks; and each is composed of five petals: these are oblong, bent, and pointed at the tips. The cup is very small. The seeds are large; and they are surrounded by a membrane, which is nipped at the top and bottom.

Linnaeus places this among the *pentandria digynia*, as the others.

Broad-leaved Thaspia.

Thaspia latifolia. *Pl. Co. 4*

The root is very large, long, and full of a disagreeable juice; and at the top there usually are a multitude of fibrous substances, in the manner of hairs, which are the remains of decayed foot-stalks.

The leaves are very large, broad, and hairy; and they are divided into extremely small parts.

The stalk is thick, striated, and parted into many branches.

The flowers stand at the tops in large umbells; and they are small and yellow.

The seeds are large and beautiful.

It is a native of the warmer parts of Europe, and flowers in August.

C. Bauhine calls it *Thaspia latifolia villosa*.

GENUS V.

FENNEL-GIANT.

FERULA.

THE flowers stand in great umbells, terminating the branches. Each is composed of five petals, equal in size, oblong, and strait. The cup is very minute, but has five divisions. The seeds are very large and flat; and each has three ridges.

Linnaeus places this among the *pentandria digynia*, as the others.

Narrow-leaved Fennel Giant.

Ferula foliis capillaceis. *Pl. Co. 5*

The root is very large, long, and furnished with a few fibres.

The stalk is six feet high, and toward the top it is divided into numerous branches.

The leaves are placed irregularly on it; and these, as well as those from the root, are very large, and are divided into innumerable fine segments.

The flowers are small and yellow.

The seeds are very large and brown:

N^o. XLII.

It is a native of the southern parts of Europe, and flowers in August.

C. Bauhine calls it *Ferula femina Plinii*. Others, *Ferula angustifolia*.

2. Broad-leaved Fennel-Giant.

Ferula segments latioribus. *Pl. Co. 6*

The root is very long and thick.

The plant grows to eight feet in height, and toward the top divides into many branches.

The leaves are large, and of a deep green; and they are divided into innumerable segments,

not so narrow as in the former kind, though of no great breadth.

The flowers are small and yellow; but they form very large umbells.

The seeds are brown.

It is frequent in the warmer parts of Europe, and flowers in August.

C. Bauhine calls it *Ferulago latiore folia*.

3. The Asia Fœtida Plant.

Ferula assam fœtidam fundens.

The root is vastly thick, and of a great length.

The stalk rises to seven feet high; and is firm, striated, and of a pale green.

The leaves are very large; but they are divided into a multitude of smaller parts, alternately ferrated, and of a pale green.

The flowers grow in vast umbells.

The seeds are large and brown.

It is a native of the mountains of Persia.

Kempfer calls it *Asia fœtida Disgunensis*.

The drug called *assa fœtida*, so eminent in nervous and hysteric cases, is the concreted juice of the root of this plant.

GENUS VI.

LASERWORT.

LASERPITIUM.

THE flowers stand in great umbells, terminating the branches; and each is composed of five petals: these are nearly equal in size, and they are oblong, divided at the ends, and somewhat bent. The cup is very minute, and is divided into five parts at the edge. The seeds are very large, oblong, and marked with four membranes on the back.

Linnaeus places this with the rest among the *pentandria monogynia*.

Lasewort.

Laserpitium vulgare. Pl. 60. 7

The root is long and thick, brown on the outside, white within, and furnished with many fibres. The top is also covered with decayed filaments, which have belonged to footstalks.

The leaves are large and pinnated: they are composed each of two or three pairs of broad, indented pinnæ; and are of a pale green, and lightly hairy.

The stalks are numerous, branched, and striated, of a pale green, and four feet high.

The leaves on these resemble those from the root; but they are smaller.

The flowers terminate the branches; and are small, but placed in large umbells.

The seeds are large and brown.

It is a native of the warmer parts of Europe, and flowers in July.

C. Bauhine calls it *Laserpitium Gallicum*. Others only, *Laserpitium*, or *Laserpitium vulgare*.

GENUS VII.

CUMMIN.

CYMINUM.

THE flowers are disposed in umbells, usually in a four-fold manner, both in the divisions and subdivisions; and at the base of the stalks, and of their subdivisions, are placed several narrow leaves. Each flower is composed of five petals, a little irregular in size, and somewhat bent in, and emarginated. The cup is scarce visible. The seeds are two: they are convex on one side, and striated, plain, and smooth on the other.

Linnaeus places it among the *pentandria monogynia* with the others.

Common Cummin.

Cyminum vulgare. Pl. 60. 10

The root is long, slender, and hung with many fibres.

The first leaves are divided into numerous, long, and very narrow segments; and are of a faint green, and a little hairy.

The stalk is round, striated, upright, and about a foot high.

The leaves on it resemble those from the rest, and stand irregularly.

The flowers are small and white; and they terminate the stalk in moderately large umbells.

The seeds are large and brown.

It is a native of the East, and is also sown there for the seeds, which are used in medicine. It flowers in July.

C. Bauhine calls it *Cyminum semine longiore*. Others, *Cyminum vulgare*.

The seeds are an excellent carminative, but very unpleasant.

GENUS

GENUS VIII.

MASTERWORT.

IMPERATORIA.

THE flowers are disposed in rounded umbells. There are no leaves at the base of the principal stalks, but several small ones at the subdivisions. The cup is scarce visible. Each flower is composed of five regular petals, nipped at the ends. The seeds are oval, edged with a broad rim, and marked with two furrows.

Linnaeus places it with the others.

Masterwort.

Imperatoria vulgaris. Pl. 60. 9

The root is long, thick, and divided; brown on the outside, white within, and of an aromatic, but very acrid taste.

The stalk is upright, firm, striated, branched, and four feet high.

The leaves are composed of numerous, oblong parts, ferrated, of a deep green, and placed on branched footstalks.

The flowers are small and white; but they are placed in large umbells.

The seeds are brown.

It is a native of many of the warmer parts of Europe, and flowers in June.

C. Bauhine calls it *Imperatoria major*. Others, *Imperatoria vulgaris*.

The root is cordial and sudorific, and is greatly recommended against malignant and pestilential fevers.

GENUS IX.

LOVAGE.

LEVISTICUM.

THE flowers stand in umbells on numerous subdivided branches: at the base stand several leaves, and at the subdivisions four. The cup is divided into five segments. Each flower consists of five petals; which are plain, hollowed, and turned back. The seeds are oblong and smooth, marked at the back with five ribs, and flat on the other side.

Linnaeus places this with the rest among the *pentandria monogynia*.

Lovage.

Levisticum vulgare. Pl. 60. 10

The root is long, thick, and furnished with many fibres.

The stalk is striated, firm, six feet high, and divided into numerous branches.

The leaves are large; and they are composed of very numerous segments; which are oblong, ferrated, sharp-pointed, and of a deep, shining green.

The flowers are small and yellow, and the seeds are brown.

The whole plant has a strong, and not very agreeable smell.

It is a native of Spain, and flowers in July.

C. Bauhine calls it *Levisticum vulgare*. Others, *Levisticum vulgare*.

It is recommended against pestilential disorders as a cordial and sudorific.

An infusion of the root operates by urine safely and powerfully; and is good against obstructions of the viscera, and in the gravel.

GENUS X.

SERMOUNTAIN.

SILER MONTANUM.

THE flowers are disposed in umbells, on divided and subdivided branches; and there are small leaves both at the bases of the principal branches, and their subdivisions. The cup is divided into five parts, and is very small. The flowers are each formed of five equal petals, bent back at the ends; and the seeds have a double, foliaceous rim.

Linnaeus places this with the preceding among the *pentandria monogynia*; but he does not allow it to be a distinct genus.

Sermountain.

Siler montanum vulgare. Pl. 60. 11

The root is long, thick, and tufted at the top with fibres of decayed leaves.

The stalk is five feet high, striated, hollow, and branched.

The leaves are very beautiful: they are of a bright green, large, and composed of almost innumerable small, oblong, pointed segments.

The

The flowers stand in large umbells on the tops of all the branches; and the seeds are broad, and of a pale brown.
It is a native of Italy, and flowers in August.

C. Bauhine calls it *Ligusticum quod sefeli officinarum*. Others, *Siler montanum*.

The root is aperient and diuretick. It is excellent against the jaundice, and in the beginnings of dropsies.

GENUS XI.

SKIRRET.

SISARUM.

THE flowers are disposed in umbells, on spreading subdivided branches; and there are small leaves at the base of the principal stalks and subdivisions. The cup is scarce visible. The flowers are composed each of five petals, which turn back. The seeds are rounded and striated.
Linnaeus places this among the *pentandria* with the preceding.

Common Skirret.

Sisarum vulgare. *Pl. Co. 12*

The root is composed of numerous, oblong, tuberous pieces, brownish on the outside, white within, and of a pleasant flavour.

The stalk is striated, firm, branched, and a foot and half high.

The leaves are pinnated; and the pinnae are

oblong, ferrated, sharp-pointed, and of a pleasant green.

The flowers are white; and toward the evening they have a light fragrance.

The seeds are small and brown.

It is a native of Spain, and is cultivated in other countries for the root, which is pleasant and wholesome.

C. Bauhine calls it *Sisarum Germanicum*.

GENUS XII.

ANISE.

ANISTUM.

THE flowers are placed in umbells, on divided and subdivided branches; and there are no leaves at the base of either. The cup is very small. Each flower is composed of five oval petals; and the seeds are rounded, and striated on one side.

Linnaeus places this with the preceding among the *pentandria*.

Common Anise.

Anisum vulgare. *Pl. Co. 13*

The root is long, slender, and white.

The stalk is weak, hairy; a foot and half high, but scarce erect.

The lower leaves are composed of a few broad, short segments, ferrated at the edges, and of a deep green. Those on the upper part of the stalk are formed of very narrow segments.

The flowers are small and white.

The seeds are of a pale olive colour, and of a strong smell, and sweet taste.

It is a native of the East, and is sown in the Levant islands for the seeds.

C. Bauhine calls it *Anisum herbarium*. Others, *Anisum vulgare*.

The seeds are an excellent mild carminative, good in cholicks, flatulencies, and indigestions.

GENUS XIII.

PARSLEY.

PETROSELINUM.

THE flowers are disposed in small umbells, on divided and subdivided branches, and at the bases of the principal and lesser divisions stand one or more irregular leaves. The cup is very minute. Each flower is composed of five roundish petals. The seeds are roundish, and striated.
Linnaeus places this among the *pentandria* with the preceding.

Common Parsley.

Petroselinum vulgare. *Pl. Co. 14*

The root is long, slender, white, and of an agreeable taste.

The stalk is two feet high, striated, weak, and divided into many branches.

The lower leaves are composed of numerous, broad, ferrated segments; and are of a fine green. The upper leaves are narrower in their divisions.

The flowers are small and yellow, and the seeds are of a dark brown.

It is a native of Germany, and is cultivated in gardens every where.

Beside its use at the table, the seeds are carminative, and good in cholicks. A strong decoction of the roots works safely and powerfully by urine; and is excellent in obstructions of the viscera.

coction of the roots works safely and powerfully by urine; and is excellent in obstructions of the viscera.

GENUS XIV.

BISHOPS WEED.

AMMI.

THE flowers are placed in umbells on subdivided branches; and at the base of the principal, and of the subdivisions both, there stand little oblong leaves. The cup is very minute. Each flower is composed of five irregular, heart-shaped petals; those in the outer part of the tufts having great disproportion, and those in the middle the petals more equal. The seeds are convex, and striated.

Linnaeus places this with the preceding among the *pentandria*.

Common Bishops Weed.

Ammi vulgare. *Pl. Co. 15*

The root is long, slender, and furnished with many fibres.

The stalk is striated, of a pale green, branched, and three feet high.

The leaves at the bottom are composed of numerous, broad, indented pinnae; and are of a

deep green. Those on the upper part are divided into narrower segments, and are paler.

The flowers are small and white; and the seeds are of a dark brown.

It is a native of the East, and flowers in July.

C. Bauhine calls it *Ammi majus*. Others, *Ammi vulgare*.

The seeds operate by urine; and are also good against flatulencies.

GENUS XV.

SPANISH TOOTH PICK.

GINGIDIVUM.

THE flowers are placed in umbells, on subdivided branches; and the whole umbel, which is flat while in flower, grows convex as the seeds ripen. Under the principal branches, and their subdivisions, there stand numerous little leaves. The cup is very minute. Each flower is composed of five petals; of which the outer one is larger than the rest. The seeds are oblong and rough.

Linnaeus places this among the *pentandria* with the rest.

Spanish Toothpick.

Gingidium Hispanicum. *Pl. Co. 16*

The root is long and thick.

The stalk is two feet high, striated, green, and divided into many branches.

The leaves are large, and of a fine bright green: they are divided and subdivided into minute, narrow segments.

The flowers form large umbells; but they are separately small and white.

The seeds are brown, and of a very pleasing smell.

It is a native of Spain, and flowers in August.

C. Bauhine calls it *Gingidium umbella longa*. Others, *Visnaga*.

The rays of the umbel, when the seeds are picked off, make an excellent kind of toothpicks: they are fine, tough, of a rough surface, and sweet-scented. We sometimes import them for that purpose.

GENUS XVI.

CANDY DAUCUS.

DAUCUS CRETICUS.

THE flowers are placed in umbells, on subdivided branches; and at the bases of the principal branches, and of their subdivisions, there stand several little leaves. The cup is very small. The flowers are composed of five heart-shaped petals, which are bent; and the outer one is largest. The seeds are long and hairy.

Linnaeus ranges this with the other umbelliferous plants among the *pentandria*; each flower having five filaments.

Candy Daucus.

Daucus Creticus. Pl. Can.

The root is long, small, and hung with a few fibres.

The stalks are weak, slender, striated, and a foot high.

The leaves at the bottom are divided into numerous, narrow segments; and they are of a

greyish green colour: those on the upper part of the plant are cut into longer and yet slenderer parts.

The flowers are small and white; and the seeds are oblong, rough, and brown.

It is a native of the East, and flowers in July.

C. Bauhine calls it *Daucus Alpinus multifida folio*. Others, *Daucus Cretensis*.

The seeds are carminative and diuretick.

G E N U S XVII.

UMBELLIFEROUS PELLITORY.

Pyrethrum Umbelliferum.

THE flowers are placed in umbells on subdivided branches; and there are no leaves, either at the bases of the principal or lesser divisions. The cup is very minute. Each flower is composed of five oblong petals. The seeds are oblong, and lightly striated.

Linnaeus places this among the *pentandria* with the preceding.

*Umbelliferous Pellitory.**Pyrethrum umbelliferum. Pl. Can. 100*

The root is long, slender, and hung with a few fibres: it is of a brown colour, and a very acrid taste.

The stalk is striated, and three feet high; divided into numerous branches, and of a pale green.

The leaves are very beautifully formed of mi-

shute, oblong segments; and are of a shining green.

The flowers are small and white, and the seeds are brown.

It is a native of the East, and some of the warmer parts of Europe, and flowers in July.

C. Bauhine calls it *Pyrethrum umbelliferum*: a name most others have copied.

The root held in the mouth is good against the toothach, as that of the right *pellitory* of Spain.

G E N U S XVIII.

BLACK MASTERWORT.

Astrantia.

THE flowers are placed in small umbells, upon a few principal branches, with numerous subdivisions; and at the base of each stand several little leaves. The cup is divided by five dents at the edge. Each flower is composed of five oblong petals, split at the top. The seeds are oblong, and covered with a kind of crust.

Linnaeus places this with the rest of the umbelliferous plants among the *pentandria*, the flowers in all having five filaments.

*Black Masterwort.**Astrantia. Pl. Can. 19*

The root is black, and composed of numerous fibres.

The first leaves are placed on long, reddish footstalks; and are divided to the base into five parts: these are oblong, serrated, sharp-pointed, and of a deep green on the upper side, and a yellowish green underneath.

The stalks are numerous, striated, weak, and two feet high.

The leaves on these resemble those from the root; but they are smaller, and have fewer divisions, and those placed less regularly.

The flowers terminate the branches in small umbells; which are surrounded at the base by a peculiar kind of leaves, forming a general cup; and these are reddish within.

The flowers themselves are of a greenish white. The seeds are small and brown.

The whole plant has an aromatick taste. It is a native of the mountainous parts of Europe, and flowers in June.

C. Bauhine calls it *Helleborus niger sanicula folio major*. Others, *Astrantia nigra*.

The root is a violent purge.

The END of the TWENTY-FOURTH CLASS.

T H E

T H E

BRITISH HERBAL.

C L A S S XXV.

Plants whose flower is composed of numerous floscules, placed within a common cup, and forming a kind of head; each floscule being tubular, and the cup formed of numerous scaly parts.

THERE is not in the whole compass of Nature a class more obviously or more distinctly characterised than this. The head shews itself to the most slight observer as distinct from what is seen in all other kinds: and it is universal in these. From this Mr. Ray was induced to range them in one genus, under the name of *capitatae*; and so conformable to herself is Nature, even in the least points, that the Linnaean system, established upon the threads in the flower, does not separate them.

That author places them in his class of *syngenesia*; the character of which is, that the buttons at the summit of the threads coalesce, and form a cylinder. All the capitate plants have this peculiar character: but though it serves to keep them together, it does not answer the second purpose of the distinctions in science, which is, to separate all others from them; for the other *composite-flowered* plants, the *few-thistle*, and such others, having their buttons coalescent in the same form, are united by that character with the capitate plants.

Thus Linnaeus has therefore of necessity, according to his method, arranged them: the *thistles* and *coltsfoot* stand in the same class; and are united under it with the *violet* and *balzam*.

S E R I E S I.

Natives of BRITAIN.

Those of which one or more species are naturally wild in this country.

G E N U S I.

GENTLE THISTLE.

Cirsium.

THE general cup is formed of many scales, and swells out in the middle. The flowers in this are numerous; and each is formed of a single petal, of a tubular shape, very narrow at the base, and wide at the mouth, where it is divided into five segments. The seeds are oblong, and winged with down; and the leaves of the plant are set with very slight, weak prickles. Linnaeus places this among the *syngenesia*; the filaments converging, and the buttons being united in a cylindrick form.

1. English

1. English Gentle Thistle.

Cirsium Anglicum. Pl. G. 1. 1

The root is composed of numerous, spreading fibres.

The stalk is upright, firm, not much branched, and two feet high.

The leaves are long and narrow: they are of a pale green, covered lightly with a greyish, hoary matter, and at the edges beset with numerous, slight prickles.

The flowers grow at the tops of the stalks; and they are large and purple.

It is found on marshy ground in many parts of England, and flowers in June.

C. Bauhine calls it *Cirsium majus singulare capitulo*.

The leaves are sometimes divided slightly at the edges; and the flower is not unfrequently white.

2. Great Gentle Thistle.

Cirsium majus nutante flore.

The root is fibrous, and white.

The stalk is firm, upright, whitish, and five feet high: it is rarely much branched, and toward the top it usually bends with the weight of the flower.

The leaves are very large, oblong, broad, woolly and whitish on the upper side, and quite white underneath.

The flowers are large and purple: usually there is only one at the extremity of the stalk.

It is found in mountainous damp places, but is not common.

C. Bauhine calls it *Cirsium singulare capitulo squamato*. Others, *Cirsium Britannicum repens*. The flower in this also is sometimes white.

3. Blue Mountain Cirsium.

Cirsium humile polyanthemum flore caerulecente.

The root is composed of thick, white fibres. The stalk is upright, tough, whitish, and two feet high.

The leaves are oblong, broad, and of a pale green: they are lightly downy on the surface, and edged with five weak prickles.

The flowers terminate the tops of the branches in clusters; and they are large, and of a bluish purple.

The seeds are large and brown.

It is not uncommon in Wales, and flowers in July.

Ray calls it *Cirsium humile montanum cynoglossifolio polyanthemum*. Merret, *Carduus mollis caeruleo flore*.

4. Dentated Cirsium.

Cirsium foliis angustis dentatis.

The root is long and slender.

The stalk is weak, tough, divided into a few branches, and two feet high.

The leaves are long, and very narrow; of a greyish green, and ferrated at the edges.

The flowers are small and numerous, and are of a bright purple.

Ray calls this *Cirsium montanum polyanthemum foliis folio*. He thought it but a variety of the former: but I have both the plants, and they are certainly distinct.

G E N U S II.

T H I S T L E .

C A R D U U S .

THE flowers are placed in great numbers in a common cup. This is composed of many scaly substances, pointed at the ends; and it swells out in a rounded form. Each flower is formed of a single petal; and is tubular, and small at the bottom, and spread out broad at the top; where it is divided into five segments, one more deeply separated than the others. The seeds are winged with down. The leaves are beset with strong and sharp petals, and in many species also the stalks.

DIVISION I. BRITISH SPECIES.

1. Common Way Thistle.

Carduus vulgarissimus. Pl. G. 1. 2

The root is white and creeping.

The stalks are numerous, rough, of a pale green, smooth, not much branched, and a yard high.

The leaves are numerous, long, moderately broad, and of a strong green: they are deeply and irregularly notched and sinuated at the edges, and beset with long and sharp prickles.

The flowers terminate the branches in numerous small heads; and are of a pale purple.

It is common in fields and under hedges. It flowers in June.

C. Bauhine calls it *Carduus repens folio sonchi*.

3

2. Musk-Thistle.

Carduus moschatatus capitulo nutante

The root is long, thick, and furnished with many fibres.

The stalk is firm, upright, of a brownish colour, and five feet high.

The leaves are numerous, large, and divided at the edges: they are of a dusky green, and beset with sharp prickles.

The flower is large and purple; and frequently there is but one at the extremity of the stalk, which hangs drooping.

It is very common in damp pastures, and flowers in June.

J. Bauhine calls it *Carduus nutans*. C. Bauhine, *Cirsium majus singulare capitulo magno*.

3. Thistle

3. Thistle upon Thistle.

Carduus caule crispo.

The root is fibrous and white.

The stalks are numerous, tough, upright, branched, and edged with very sharp prickles.

The leaves are long, narrow, of a deep green, divided at the edges, and very prickly.

The flowers stand at the tops of the branches in numerous small heads; and they are of a pale red.

It is common under hedges, and flowers in July.

C. Bauhine calls it *Carduus spinosissimus angustifolius vulgaris*.

4. Welled Thistle, with small flowers.

Carduus spinosissimus floribus minoribus.

The root is long, thick, and furnished with many fibres.

The stalk is three feet high, edged at the several sides with prickly membranes from the bases of the leaves, and of a dusky green.

The leaves are oblong, considerably broad, dentated and sinuated at the edges, and very prickly.

The flowers are placed in small heads at the tops of the stalks, and in the bosoms of the upper leaves, and they are of a pale red.

It is found on ditch-banks in loamy soils, and flowers in August.

C. Bauhine calls it *Carduus acanthoides*. Pe-tiver, *Carduus spinosissimus capitulis minoribus*.

5. Marsh-Thistle.

Carduus palustris.

The root is composed of numerous, tough, brown fibres.

The stalk is upright, not much branched, and seven feet high: it is usually of a brownish colour, with a tinge of purple, and is very prickly.

The leaves are long, and moderately broad, of a deep green, and set with thorns.

The flowers stand at the tops of the stalk, six or eight together; and they are of a deep purple.

It is frequent in meadows, and flowers in June.

C. Bauhine calls it *Carduus palustris*. Others, *Carduus aquaticus*.

6. Marsh-Thistle, with a single head.

Carduus palustris singulare capitulo.

The root is formed of numerous, thick, white fibres.

The stalk is upright, redish, very prickly, not much branched, and four feet high.

The leaves are very large, broad, oblong, and moderately prickly.

The flower usually stands single at the summit of the stalk: it is a large prickly head, containing numerous floscules of a very bright purple.

It is found in our fen countries, and flowers in July.

Plukenet calls it *Carduus palustris mitior bardane capitulo in summo caule singulare*.

The flower is sometimes white.

N^o XLIII.

7. Dwarf Carline Thistle.

Carlina humilis. Pl. G. 1. 3

The root is long and thick, and has many fibres.

The leaves lie spread upon the ground; and they are long and large, very deeply and irregularly divided at the edges, and set with strong, sharp prickles.

The flower is large, and of a fine purple: it scarce rises from the ground, but grows in the centre of the leaves upon a very short stalk.

It is common in dry pastures in many of our southern counties, and flowers in July.

C. Bauhine calls it *Carlina acaulis flore minore purpureo*. Others, *Carlina acaulis septentrionalium*.

8. Spear-Thistle.

Carduus lanceatus. Pl. G. 1. 4

The root is long, and hung with many fibres.

The stalk is upright, six feet high, very prickly, and divided into numerous branches.

The leaves are long and large: their colour is a pale green; and they are divided deeply at the edges into pointed segments; and at the ends are formed in the same manner, resembling the point of a spear.

The flowers grow at the tops of the branches, and are large and purple.

It is common in waste places, and flowers in July.

C. Bauhine calls it *Carduus lanceatus latifolius*.

9. Small Spear-Thistle.

Carduus lanceatus minor.

The root is composed of numerous fibres.

The stalk is upright, divided into many branches, and four feet high: its colour is a greyish green, and it is very prickly.

The leaves are long, and narrow: they are deeply divided into sharp segments; and they run out into a long point at the end.

The flowers are small, and of a pale red; and they stand in great clusters at the extremities of the branches.

It is common by way-sides, and flowers in August.

Ray calls it *Carduus lanceatus flore et capite minoribus*.

10. Giant-Thistle.

Carduus lanceatus maximus.

The root is composed of numerous fibres, connected to a large head.

The stalk is upright, firm, very prickly, not much branched, and eight feet high.

The leaves are very large, long, considerably broad, of a fine deep green, and divided in the spear-pointed manner at the sides and ends.

The flowers are few in number; but they are very large: they stand at the tops of the branches, and are of a fine purple.

It is common in our northern counties, and flowers in July.

Ray calls it *Carduus lanceatus major*.

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11. Woolly

11. Woolly-headed Thistle.

Carduus tomentosus. AC. 61. 5

The root is fibrous.

The stalk is thick, upright, branched, and five feet high.

The leaves are long, and moderately broad; and they are very beautifully divided; somewhat in the manner of the *spear-thistles*, but with more numerous and more regular segments. Their colour is a deep green.

The flowers grow at the tops of the branches in large woolly heads; and they are of a fine deep purple.

We have it in our western counties, but not common. It flowers in August.

C. Bauhine calls it *Carduus capite rotundo tomentosus*. Others, *Carduus eriocephalus*, and *Corona fratum*.

12. Lady's Thistle.

Carduus Maria. AC. 61. 6

This is a stately and very beautiful plant; and, if brought from a remote part of the world, would be esteemed in gardens.

The root is long, and furnished with numerous fibres.

The stalk is upright, firm, regularly branched, and five feet high.

The leaves are very large, long, broad, irregularly notched at the edge, of a deep, fine green colour, and veined and variegated with white.

The flowers are very large and purple, and the heads are prickly.

It is common in waste places, and flowers in July.

C. Bauhine calls it *Carduus albis maculis notatus vulgaris*. Others, *Carduus luteus*.

13. Hairy Lady's Thistle.

Carduus Maria hirsutus.

The root is fibrous and white.

The stalk is upright, prickly, firm, not much branched, and four feet high.

The leaves are very large, long, broad, dentated, and sinuated at the edges, of a pale green, somewhat hairy, and not at all variegated with white: they are set with sharp prickles, and cover the stalk very thick.

The flowers grow at the tops of the branches in large heads; and are of a pale red.

It is not unfrequent in waste grounds, and flowers in July.

Ray calls it *Carduus Mariae hirsutus non maculatus*.

14. Cotton-Thistle.

Carduus tomentosus acanthium dictus. AC. 61. 10

The root is long, white, and hung with many fibres.

DIVISION II. FOREIGN SPECIES.

1. Globe-Thistle.

Carduus capite sphaerico. AC. 61. 10

The root is fibrous.

The first leaves are extremely broad, slightly indented, sharp pointed, of a whitish green, covered with a cottony matter, and set round with prickles.

The stalk is five feet high, edged with prickly membranes, and set thick with the same kind of leaves.

The flowers stand in very large heads; and are of a bright red, with a tinge of purple.

It is common on ditch-banks, and flowers in July.

C. Bauhine calls it *Spina alba tomentosa latifolia sylvestris*. Others, *Acanthium*.

15. Common Star-Thistle.

Carduus stellatus calcitrapa dictus.

The root is long, slender, and hung with a few fibres.

The first leaves spread circularly upon the ground; and they are long, narrow, and dentated at the edges.

The stalk is two feet high; and is of a pale green, and prickly.

The leaves on it resemble those from the root; but they are more deeply divided, and their colour is a pale green.

The flowers stand at the tops of the branches; and are large, and of a faint red, sometimes white.

The heads of the flowers are armed with prickles, which spread out like the rays of a star. We have it in dry pastures, but not common. It flowers in July.

C. Bauhine calls it *Carduus stellatus foliis papaveris erratici*. Others, *Carduus stellatus*, and *Calcitrapa*.

16. Solstitial Thistle.

Carduus stellatus luteus. AC. 61. 11

The root is long, slender, black, and hung with a few fibres.

The first leaves spread circularly on the ground; and they are long, deeply divided, and of a faint green.

The stalk is tough, firm, upright, and two feet high.

The leaves on it resemble those from the root; and they are of a faint green.

The flowers stand in small prickly heads at the tops of the branches; and they are of a beautiful yellow.

We have it in dry pastures in some parts of England; but it is not common. It flowers in June.

C. Bauhine calls it *Carduus stellatus luteus foliis Cyani*. Others, *Carduus solstitialis*. And we The St. Barnaby's thistle.

The thistles in general possess but small medicinal virtues. The young shoots are esculent, and in most kinds very well tasted.

The stalk is two feet and a half high, round, tough, glutinous to the touch, and covered with a purplish dust.

The leaves are long, moderately broad, deeply indented;

indented; and of a beautiful green on the upper side, and a pale green underneath.

The flowers stand at the tops of the stalks in round heads; and are of a beautiful blue.

It is a native of Italy, but is common in our gardens.

C. Bauhine calls it *Carduus sphaerocephalus latifolius vulgaris*. Others, *Carduus globosus*.

2. Blessed Thistle.

Carduus benedictus. AC. 61. 11

The root is long and slender.

The stalk is tough, firm, very much branched, and two feet high.

The leaves are long, moderately broad, irregularly sinuated at the edges, and of a yellowish green.

The flowers are yellow; and they are placed in prickly heads, close surrounded with several little leaves.

It is a native of the German mountains, and flowers in August.

C. Bauhine calls it *Cnicus sylvestris hirsutus*. Others, *Carduus benedictus*.

It is celebrated as a stomachick and sudorifick, but is not so much regarded in the modern practice as those encomiums bestowed on it by authors seem to demand.

GENUS III.

SAFFLOWER.

CARTHAMUS.

THE flowers are disposed in numbers in scaly heads; the several scales having a kind of foliaceous appendage at the end. Each separate flower is formed of a single petal, and is tubular at the base, and divided into five segments at the edge. The seeds are large, and stand almost naked. Linnaeus places this with the other capitate plants among the *syngenesia*; their buttons coalescing.

Common Saff flower.

Carthamus vulgaris. AC. 61. 12

The root is long, slender, whitish, and hung with a few fibres.

The stalk is upright, not much branched, round, and redish at the bottom.

The leaves are broad, short, sharp-pointed, and of a lively green: they stand irregularly on the stalks.

The flowers grow at the summits of the stalks

and branches in large scaly heads; and they are of a beautiful orange yellow, which they retain when dry.

It is found by road-sides in some few parts of England. Probably these shoots have risen from scattered seeds, the plant having been cultivated in the neighbourhood for the use of dyers: though perhaps it may be native.

It flowers in August.

C. Bauhine calls it *Cnicus sativus*. Others, *Carthamus*.

GENUS IV.

SAW-WORT.

SERRATULA.

THE flowers are collected in small heads, and contained in a common cup; which is oblong, rounded, a little swelled, and formed of scales close set, but not prickly. Each floccule is formed of a single petal, tubular, and crooked at the base, and swelled out, and divided into five segments at the rim. The leaves are not prickly.

Common Saw-wort.

Serratula vulgaris. AC. 61. 13

The root is fibrous and white.

The first leaves are usually undivided, oblong, broad, and of a beautiful green: sometimes they are deeply cut in a pinnated form; and they in the same manner vary upon the stalks, being in some plants undivided, and in others very deeply jagged, while the species is the same. In both forms they are very regularly and beautifully notched at the edges; whence the plant had its name.

The stalk is round, upright, slender, and two feet or more in height.

The flowers are collected in small heads; and are of a fine purple, but sometimes white.

The seeds are oblong and large.

It is common about woods, and flowers in August.

C. Bauhine calls it *Serratula*. Others, *Serratula purpurea*.

It is accounted vulnerary and astringent, but not used.

GENUS

G E N U S V.

B U R D O C K.

L A P P A.

THE flowers are collected in large, rounded heads, and are contained many in a common cup; which is formed of oblong scales, whose points turn downwards as so many hooks. Each flower has a long, slender tube, and is divided into five segments at the rim. The seeds are pyramidal, and winged with short down.

Linnaeus places this with the preceding among the *syngenesia*: but he takes away the received name *lappa*, and calls the genus *arctium*.

1. Great Burdock.

Lappa vulgaris major. *Pl. 61. 14*

The root is long and thick, brown on the outside, white within, and hung with a few fibres.

The stalk is a yard high, striated, tough, and divided into many branches.

The leaves are extremely large: they are broad at the base, smaller to the point, and of a greyish green colour.

The flowers are of a faint purple.

It is common every where in waste grounds, and flowers all summer.

C. Bauhine calls it *Lappa major arctium* *Disco-*
ridis. Others, *Lappa*, and *Bardana major*.

The root is an excellent diuretick and deobstruent. The best way of giving it is in a strong infusion; and it is thus very serviceable in obstructions of urine, and in the jaundice. It is also much celebrated in asthma. The seeds possess the same virtues.

2. Smooth-headed Burdock.

Lappa capitulis maximis glabris.

The root is long, thick, brown, and full of a slimy juice.

The stalk is red toward the bottom, very tough, divided into many branches, and five feet high.

The leaves are of a vast size, and of a deep green.

The flowers are of a fine red; and the heads in which they are contained are very large and smooth.

It is frequent by way-sides with the other, and flowers in August.

Ray calls it *Lappa major capitulo maximo glabra*.

3. Small-headed Burdock.

Lappa major capitulis minoribus.

The root is long, thick, and of a pale colour.

The stalk is tough, striated, and very much branched.

The leaves are large, oblong, and not so broad as in the common species.

The heads are smooth, small, and very numerous: they are of a conic figure, and have tufts of purple flowers.

It is common in our southern counties, and flowers in July.

Ray calls it *Lappa major capitulis parvis glabris*.

4. Woolly-headed Burdock.

Lappa capitulis magnis tomentosis.

The root is long, thick, and brown.

The stalk is very thick, striated, purplish, and five feet high: it is divided into many branches, and thick set with leaves.

These are broad, short, rough, of a grey green, and of an uneven surface.

The flowers stand at the tops in vast roundish, woolly heads.

The seeds are large and brown.

It is common in our waste grounds, and flowers in June.

Ray calls it *Lappa major capitulis tomentosis*. Others, *Bardana major capitulis lanuginosis*.

5. Globular-headed Burdock.

Lappa capitulis minoribus globosis.

The root is long and large.

The stalk is tough, firm, upright, and four feet high; and it is divided into many branches, and thick set with leaves.

These are very large, broad, rumpled, of a dusky green, and clammy.

The flowers are of a pale red, sometimes white; and they are collected into little, globular heads; which are thick set with a woolly matter.

We have it in our northern counties, where it flowers in May.

Ray calls it *Lappa major montana capitulis minoribus rotundioribus et magis tomentosis*.

6. Little Cobweb-headed Burdock.

Lappa minor capitulis reticulatis.

The root is very long and brown.

The stalk is lightly ribbed, and of a reddish colour.

The leaves are large, and have brown foot-stalks: they are of an uneven surface, and pale green.

The flowers are little and purple; and they are collected into small olive-coloured heads, elegantly reticulated with a white, woolly matter.

Petiver calls it *Bardana minor capitulo araneoso*.

G E N U S VI.

B L U E B O T T L E.

C Y A N U S.

THE flowers are arranged many together in a small head. The common cup surrounding them is of a rounded figure; and is composed of oblong scales, edged in an elegant manner. The floscules or separate flowers are large: they have a long and slender tube, and a wide mouth, swelled out and divided into five segments; and the floscules on the verge of each head are less divided than those in the centre. The leaves are not prickly, and the whole flower is elegant.

Linnaeus places this among the *syngenesia*.

DIVISION I. BRITISH SPECIES.

Common Bluebottle.

Cyanus vulgaris. *Pl. 61. 15*

The root is fibrous, and whitish.

The stalk is upright, slender, firm, ribbed, of a pale green, and covered more or less with a whitish, downy substance.

The leaves are long and narrow: those on the lower parts are divided deeply in a somewhat pin-

nated manner. The others are entire: they are of a pale green, and of a firm substance.

The flowers terminate the tops of the branches; and they are large, and of a fine blue.

It is common in corn-fields, and flowers in August.

C. Bauhine calls it *Cyanus segetum*. Others, *Cyanus minor*.

DIVISION II. FOREIGN SPECIES.

Great Bluebottle.

Cyanus major.

The root is composed of innumerable thick fibres.

The stalks are round, thick, a foot and half high, and not much branched: they are of a fresh green colour; but they have a white cottony matter about them.

The leaves are large, oblong, undivided, and of a fine green.

The flowers are large and beautiful: they are naturally purple; but sometimes blue, and sometimes white.

It is a native of Italy, and flowers in August.

C. Bauhine calls it *Cyanus montanus latifolius sive verbasculum cyanoides*.

G E N U S VII.

K N A P W E E D.

J A C E A.

THE flowers are collected into large, rounded heads; and the scales composing these are edged with slender and irregular fibres. The flowers themselves are small: they have a very narrow, tubular base; and an open mouth, divided deeply into five segments; which are long, narrow, and pointed.

Linnaeus places this with the *cyanus* among the *syngenesia*. He does not allow either to be a distinct genus, but comprises them together with the *great centaury* under the name *centaurea*.

1. Common Knapweed.

Jacea vulgaris. *Pl. 61. 16*

The root is composed of numerous, tough, brown fibres.

The stalk is upright, firm, of a brown colour, not much branched, and a foot and half high.

The leaves are oblong, and of a dusky green; they are variously and irregularly nicked and divided at the edges.

The flowers terminate the branches; and they are of a fine, purplish red.

The seeds are small and brown.

It is common in pastures, and by way-sides, and flowers in June.

C. Bauhine calls it *Jacea nigra pratensis latifolia*. Others, *Jacea vulgaris*.

N^o 43.

It is an excellent aftringent, and is best given in decoction.

2. Great Knapweed.

Jacea major. *Pl. 61. 17*

The root is composed of innumerable thick long, and brown fibres.

The stalk is robust, brown, two feet and a half in height, and variously and irregularly branched.

The leaves are large; and some of them are entire, others divided to the rib into many segments.

The flowers stand at the tops of the branches; and they are large, and of a lively purple.

The seeds are large and brown.

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17

It is common in hilly pastures, and flowers in July.

C. Bauhine calls it *Jacea major squammatifolia*.

3. Grey Matweed.

Jacea foliis cinereis.

The root is composed of many slender fibres.

The stalk is upright, brown, but covered with a cottony matter, not much branched, and rarely above ten inches high.

The leaves are oblong and narrow, of a greyish green, and cottony. Those toward the lower part are deeply divided, the others scarce at all.

The flowers are large, and of a pale flesh-colour.

It is found in our northern counties, and flowers in July.

Ray calls it *Jacea minor tomentosa laciniata*, but the upper leaves usually are undivided.

SERIES II.

FOREIGN GENERA.

Those of which there is no species native of this country.

GENUS I.

GREAT CENTAURY.

CENTAURIA.

THE flowers are collected into oblong heads; which are composed of numerous, thick, clustered scales: they are each formed of a single petal, which has a very slender, tubular base; and is deeply divided into five segments.

Linnaeus places this with the rest of the capitate plants among the *syngenesia*, their buttons in the flower coalescing in a cylindric form. The common name of the genus is *centaurium majus*: but that is an irregular term. It is better therefore to follow the modern practice, and call it *centauria*.

Common Great Centaury.

Centauria vulgaris. *Pl. 61. 100*

The root is long, thick, and of a redish colour.

The stalk is firm, upright, of a brown colour, four or five feet high, and divided into many branches.

The leaves are very large, and pinnated in a

regular and handsome manner: they are serrated along the edges of the pinnae, and of a yellowish green.

The flowers terminate the branches; and are large and purple.

The seeds are oblong and glossy.

It is a native of Italy, and flowers in June.

C. Bauhine calls it *Centaurium majus folio plures laciniis diviso*.

The END of the TWENTY-FIFTH CLASS.



THE

BRITISH HERBAL.

CLASS XXVI.

Plants whose flower is composed of numerous floscules, or smaller distinct flowers; which are flat not tubular, to the end; and are arranged together in a scaly cup; the whole naturally full or double; the entire number of floscules forming each general flower being uniform, and regularly disposed; and whose leaves and stalks yield, on being broken, a white milky juice.

THE first glance, even of an unexperienced eye, sees these plants, numerous as they are, to be regularly connected with one another, and evidently divided from those of all the other classes: but the present mode of science, banishing the use of obvious characters, and establishing its distinctions only on the disposition and number of the minuter parts, confounds these plants with the capitate or thistle kind described before; and with the corymbiferous, as well as simply discoid, to be described hereafter under one general term, the *syngenesia*.

Thus arranged together, they constitute the class distinguished by that term in the Linnæan system, and are with the thistles ranked also with the violet and balsam.

SERIES I.

Natives of BRITAIN.

Those of which one or more species are found naturally wild in this country.

GENUS I.

LETTUCE.

LACTUCA.

THE flower is composed of numerous, flat, or ligulated floscules, notched at the extremity, and arranged together in a scaly cup, of an oval or oblong figure, formed of numerous, soft, and sharp pointed scales. The seeds are winged with down, and the stalks of the plant are tolerably firm and solid.

Linnaeus places this among the *syngenesia*; the filaments, as in the others, having buttons, which unite into a cylinder.

DIVI:

DIVISION I. BRITISH SPECIES.

1. Great Wild Lettuce.

Lactuca sylvestris major opii odore. *Her. 1*

The root is long, thick, and whitish; and, when cut, it yields abundantly a yellow juice, of a very unpleasant smell, resembling that of opium; and of a bitter and nauseous taste.

The first leaves are very large, oblong, broad, and a little waved, but not divided at the edges.

Their colour is a pale green; and, when broken, they yield the same yellow acrid juice.

The stalk is round, green, smooth, and five feet high; and at the top it is divided into many branches.

The leaves on it resemble those from the root; and are oblong, broad, and undivided.

The flowers stand at the tops of the branches; and are numerous, small, and yellow.

It is frequent in our midland counties, and flowers in July.

C. Bauhine calls it *Lactuca sylvestris odore virolo*. Others, *Lactuca sylvestris major odore opii*.

This is one of those English plants which deserve to be more known in medicine. It is called poisonous, and men have from that been frightened from its use; but it is a very gentle and safe opiate. The best way of giving it is in a syrup made from a decoction of the fresh leaves and stalk. This way it greatly exceeds the common diacodium, and may be given to tender constitutions with more safety. This I write from experience.

2. Jagged-leaved Wild Lettuce.

Lactuca sylvestris foliis laciniatis. *Her. 2*

The root is long, thick, and brown.

The stalk is round, thick, upright, purplish, and four feet high.

The leaves are long and large, of a dead green, deeply divided at the edges, and prickly along the rib on the under side.

The flowers are small, and of a pale yellow: they grow in vast numbers on the tops of the branches.

The whole plant abounds with a yellow, ill-scented juice.

DIVISION II. FOREIGN SPECIES.

Blue-flowered Mountain-Lettuce.

Lactuca montana cerulea. *Her. 3*

The root is long, small, and hung with fibres.

The stalk is round, slender, upright, of a purplish colour, and divided at the top into many branches.

It is common on ditch-banks, and flowers in June.

C. Bauhine calls it *Lactuca sylvestris costa spinosa*. Others, *Lactuca sylvestris dissectis foliis*.

The leaves of this species are sometimes undivided, or very little divided, as in the first kind. In this state some have described it as a distinct species; and others have confounded it with this and with the first: but they are two distinct plants; and this variety only belongs to the latter here described.

3. The least Wild Lettuce.

Lactuca sylvestris minima.

The root is long and thin.

The stalks are numerous, very slender, tough, and of a purplish colour.

The leaves are long, narrow, and deeply divided; and the whole plant is full of an ill-scented juice.

The flowers are small; and they rarely open: they are placed in long, slender cups.

It is common on clay-banks of ditches, and flowers in August.

C. Bauhine calls it *Cbandrilla viscosa humilis*. Others, *Lactuca sylvestris minor*.

4. Ivy-leaved Wild Lettuce.

Lactuca murorum foliis angulosis. *Her. 3*

The root is fibrous and whitish.

The stalk is round, upright, not much branched, brownish or purplish in colour, and two feet high.

The leaves are long, and of a handsome figure: they are small, and deeply pinnated toward the base, and at the end they swell out into a broad, angulated, and pointed piece, resembling a leaf of ivy.

The flowers are small, numerous, and yellow.

It is common on banks and walls, and flowers in June.

C. Bauhine calls it *Sonchus levis laciniatus muralis parvis floribus*.

Linnaeus distinguishes this and the succeeding from the lettuce kind under the name *prenanthes*, from a slight difference in the cup.

GENUS II.

SOW-THISTLE.

SONCHUS.

THE flower is composed of numerous, flat floscules, ranged together in a large common cup. This is rounded, and formed of very numerous and very slender scales. Each of the floscules is narrow, and indented in four parts at the top. The seeds are oblong, and the stalks thick, but slight and hollow. Linnaeus places this among the *syngenesia*.

DIVISION I. BRITISH SPECIES.

1. Common smooth Sow-Thistle.

Sonchus levis vulgaris. *Her. 5*

The root is composed of numerous, whitish fibres.

The stalk is thick, upright, round, hollow, and of a dead green.

The leaves are very large, oblong, deeply sinuated at the edges, and terminated by a large, broad point.

The flowers stand in great numbers on the tops of the branches; and are large, and of a fine pale yellow.

It is common every where in ground that has been dug, and flowers in June.

C. Bauhine calls it *Sonchus levis laciniatus latifolius*. Others only, *Sonchus levis*.

2. Broad-leaved smooth Sow-Thistle.

Sonchus levis folio latiore.

The root is fibrous and white.

The stalk is round, upright, of a deep green, and a yard high.

The leaves are broad and short; and are divided at the edges by a few slight segments.

The flowers are large, and of a pale yellow. It is common in corn-fields, and flowers in June.

C. Bauhine calls it *Sonchus levis minor paucioribus laciniis*.

3. Common prickly Sow-Thistle.

Sonchus foliis spinosis vulgaris. *Her. 6*

The root is long and slender, and has many fibres.

The stalk is very thick, and of a fine deep green, round, a yard high, and branched.

The leaves are long, and considerably broad, serrated, and prickly at the edges, and of a fine deep green.

The flowers are large, and of a gold yellow. It is common on ditch-banks, and flowers in August.

C. Bauhine calls it *Sonchus asper non laciniatus*. Others, *Sonchus asper vulgaris*.

4. Jagged prickly Sow-Thistle.

Sonchus asper foliis laciniatis.

The root is long, and hung with many fibres. The stalk is round, thick, branched, and four feet high.

The leaves are very large, and of a faint green, deeply divided at the edges, and very prickly.

N° 43.

The flowers are smaller than in the last, and of a faint yellow.

It is common on waste ground, and flowers in July.

C. Bauhine calls it *Sonchus asper laciniatus*; a name most of the succeeding writers have copied.

5. Oval-leaved Sow-Thistle.

Sonchus foliis ovatis. *Her. 7*

The root is a tuft of white fibres.

The stalk is slender, upright, scarce at all branched, and a foot and half high.

The leaves are of a very elegant form and colour: they are of a glossy green, small at the base, where they surround the stalk, and oval toward the end; and they are lightly set at the edges with tender thorns.

The flowers are few, large, and of a fine gold yellow.

It is found on sandy banks, flowering in June. Petiver calls it *Sonchus rotundo folio*. Plukenet, *Sonchus subrotundo folio nostras*.

6. Naked-stalked Sow-Thistle.

Sonchus caule nudo.

The root is long, slender, and hung with many fibres.

The leaves that rise from it are very numerous, long, narrow, sharp-pointed, and beset with tender thorns at the edge.

The stalk is a foot and a half high; and often it has no leaves on it, rarely more than one or two: these are of the same form with those from the root.

The flowers are large, and of a deep yellow.

It is found among corn, and flowers in July.

7. Tree Sow-Thistle.

Sonchus arborefcens.

The root is long and thick.

The stalk is upright, round, of a yellowish green, not much branched, and beset with coarse yellow hairs.

The leaves are long, of a deep green, and divided irregularly at the edges.

The flowers stand at the tops of the branches; and are very large, and of a deep orange yellow; they stand in dark green cups, covered with coarse yellow hairs.

It is common in corn-fields and dry pastures, flowering in August.

C. Bauhine calls it *Hieracium majus folio sonchii*. Others, *Sonchus arborefcens vulgaris*.

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8. Great

8. Great Marsh Tree Sow-Thistle.

Sonchis arborescens folio cuspidato. *Pl. 62. 10*

The root is long and white.
The stalk is round, upright, eight feet high, and of a dead green: toward the top it divides into numerous branches.

The leaves are long, considerably broad, deeply indented, and pointed at the end.

The flowers are of a gold yellow, numerous, and very large.

It is a native of our marshes, and flowers in autumn.

Merret calls it *Sonchis tricuspidatus folio cuspidato*.

9. Sharp prickled Sow-Thistle.

Sonchis asper dentatus.

The root is fibrous.

The stalk is round, hollow, purplish, and two feet high.

The leaves are long, and considerably broad:

they are dentated sharply at the edges, and beset with stronger prickles than the others.

The flowers terminate the branches; and are large, and of a gold yellow.

It is found in corn-fields, and flowers in July. Petiver calls it *Sonchis asper dentatus*. Dodonæus, *Sonchis asperior*.

10. Laciniated, smooth Sow-Thistle.

Sonchis levis laciniaus.

The root is long, slender, and hung with many fibres.

The stalks are round, hollow, upright, and five feet high.

The leaves are long and large: they are considerably broad; and they are divided down to the rib in many segments.

The flowers are large, and of a faint yellow.

It is frequent in the west of England, and flowers in June.

Petiver calls it *Sonchis levis laceratus*; a name others have copied.

DIVISION II. FOREIGN SPECIES.

Blue Mountain Sow-Thistle.

Sonchis ceruleo flore. *Pl. 62. 11*

The root is long and thick.

The stalk is round, hollow, purplish, and of a firm substance: it is not much branched.

The leaves are large, oblong, sharp-pointed, deeply and irregularly pinnated, and finely serrated along the segments.

The flowers are very large, and of a fine sky-blue.

It is found on the mountains of Italy, and flowers in May.

Petiver calls it *Sonchis ceruleus levis*. Others, *Sonchis montanus ceruleo flore*.

All the *sow-thistles* possess the same qualities, which are very trifling with regard to medicine. They are cooling, outwardly applied. Some have eaten the young shoots; but they are not pleasant.

GENUS III.

HAWKWEED.

HIERACHIUM.

THE flower is composed of numerous floscules, arranged in a small head. The common cup to these is oblong; and is formed of numerous, irregular scales, lying close on one another. Each floscule is flat, and dented in five places at the end. The stalks of the plant are firm, and the seeds oblong and slender.

Linnaeus places this among the *syngenesia*, the buttons on the threads coalescing into a cylinder.

DIVISION I. BRITISH SPECIES.

1. Hawkweed with bitten roots.

Hieracium radice abrupta. *Pl. 62. 10*

The root is composed of numerous, thick fibres, joined to a small, oblong head, which terminates abruptly, and looks as if bitten off.

The stalks are numerous, a foot high, branched, and of a pale green.

The leaves are long, narrow, and sharply divided at the edges.

The flowers are small, and of a full yellow.

It is common in pastures, and flowers in July.

C. Bauhine calls it *Hieracium ebondrille folio glabro*.

2. Long-rooted Hawkweed.

Hieracium longius radiculatum. *Pl. 62. 11*

The root is very long, moderately thick, and of a pale brown.

The leaves rise in a cluster from this; and they are oblong, moderately broad, and of a deep green: they are obtuse at the ends, and are irregularly sinuated at the edges.

The stalks rise among these; and are slender, tough, branched, a foot and half high, and of a pale green: they have rarely any rudiment of a leaf upon them.

The flowers grow at the tops of the branches, and are of a fine gold yellow.

It is common in pastures, and flowers in June.

C. Bauhine calls it *Hieracium dentis leonis folio obtusum majus*.

3. Smooth yellow Hawkweed. *Pl. 62. 12**Hieracium luteum glabrum foliis laciniaus.*

The root is composed of numerous fibres.

The stalks are upright, branched, and spreading, of a pale green, and a foot and half high.

The leaves are oblong, and moderately broad; and they are very deeply jagged at the edges: their colour is a fine green; and they are perfectly smooth.

The flowers stand at the tops of the stalks; and they are small, and of a deep yellow.

It is common in pastures, and flowers in July.

C. Bauhine calls it *Cichorium pratense luteum levis*. Others, *Hieracium aphacoides*.

These three species are very common in our pastures; and they appear under various forms, according to the degree of nourishment each receives. Hence authors, who judged too superficially, have divided them into a number of kinds taller or lower, and with more or less jagged leaves: but these three are the real species.

4. Strong-scented Hawkweed.

Hieracium castorei odore.

The root is composed of long, thick fibres.

The stalk is upright, branched, and two feet high.

The leaves are long, moderately broad, hairy, deeply indented, and of a pale green.

The flowers are large and yellow; and, before they open, the bud hangs drooping.

We have it on dry banks in our midland counties. It flowers in July.

Ray calls it *Hieracium castorei odore Monspeliensium*.

This species, when less nourished, has the leaves less divided, and has in this state been considered by some as a distinct species.

5. Broad-leaved Mountain Hawkweed.

Hieracium latifolium montanum.

The root is long, slender, and furnished with many fibres.

The stalk is weak, branched, of a deep green.

The leaves are very broad, oblong, hairy, and of a dusky colour.

The flowers are large, and of a pale yellow.

It is common in our northern counties, and flowers in June.

C. Bauhine calls it *Hieracium montanum latifolium glabrum minus*. Clusius, *Hieracium Britannicum*.

6. Great jagged-leaved Hawkweed.

Hieracium laciniaus majus.

The root is long, slender, and furnished with a few fibres.

The stalk is round, firm, and two feet and half high.

The leaves are long, moderately broad, deeply sinuated, and rough.

The flowers are large, and of a deep yellow.

It is found on ditch-banks in sandy soils, and flowers in August.

C. Bauhine calls it *Hieracium maximum ebondrille folio asperum*. Others, *Hieracium cichorei folio majus*.

7. Rough-headed Hawkweed.

Hieracium asperius capitulis foliosis.

The root is long and slender, and has abundance of fibres.

The leaves that rise from it spread circularly upon the ground; and are long, narrow, of a yellowish green, and very rough to the touch.

The stalks are numerous, branched, and a foot and half high.

The leaves on these resemble those from the root; but they are not altogether so rough.

The flowers are large and yellow; and they stand in a kind of leafy heads, resembling those of the *carduus benedictus*.

It is common on ditch banks, and flowers in July.

C. Bauhine calls it *Hieracium echinoides capitulis cardui benedicti*. Our people, *Lang de beuf*.

8. Dwarf Hawkweed, with sinuated leaves.

Hieracium pumilum foliis sinuatis.

The root is long and slender.

The first leaves are long, narrow, soft, of a pale green, and sinuated deeply at the edges.

The stalks are numerous, branched, and three inches high; and they are almost naked.

The flowers stand at the tops, and are small and yellow.

It is frequent in Suffex on heaths, and flowers in July.

Ray calls it *Hieracium parvum in arenosis nascens seminum pappi densius radiatis*.

9. Great-flowered rough Hawkweed.

Hieracium asperum flore majore.

The root is long, and hung with many fibres. The stalk is upright, round, hairy, two feet high, branched, and of a brown colour.

The leaves are long, narrow, rough to the touch, and deeply sinuated.

The flowers are large, and yellow.

We have it in corn-fields, where it flowers in July.

C. Bauhine calls it *Cichorium pratense luteum birsutum asperum*. Ray, *Hieracium asperum majore flore*.

10. Dwarf rough Hawkweed.

Hieracium pumilum asperum.

The root is composed of numerous fibres, connected to an abrupt head.

The leaves are long, narrow, a little sinuated at the edges, and rough to the touch.

The stalks are tough, and eight inches high, and the flowers small and yellow.

It is found on dry banks in Kent, flowering in June.

C. Bauhine calls it *Hieracium pumilum saxatile asperum radice præmorsa*. Columna, *Hieracium saxatile montanum*.

11. Great-flowered broad-leaved Hawkweed.

Hieracium latifolium magno flore.

The root is composed of numerous fibres.

The

The leaves rise in a round tuft; and are long, broad, and covered with a downy hairyness, of a deep green, and often spotted.

The stalk is upright, slender, firm, and naked: at the top stands a single flower, sometimes two: these are large, and of a gold yellow.

We have it in Suffex, flowering in August. C. Bauhine calls it *Hieracium Alpinum latifolium bifutis incanum magno flore*.

12. Broad-leaved, hairy, Bush Hawkweed.
Hieracium erectum latifolium bifutum.

The root is composed of numerous fibres. The stalk is firm, round, a yard high, and at the top branched.

The leaves have long footstalks; and they are broad, hairy, of a pale green, indented lightly, and sharp-pointed.

The flowers are numerous, large, and of a pale yellow.

We have it about woods, flowering in July. C. Bauhine calls it *Hieracium fruticosum latifolium bifutum*; a name others have followed.

13. Short-leaved, bushy Hawkweed.
Hieracium fruticosum folio brevior.

The root is fibrous and brown.

The stalk is robust, upright, branched, and a yard high.

The leaves are broad, short, indented irregularly, and of a fine green: they are covered with a light hairyness; but it is so slight they appear smooth to the distant sight.

The flowers are large, numerous, and of a gold yellow.

It is common in our northern counties, flowering in August.

C. Bauhine calls it *Hieracium fruticosum latifolium foliis dentatis glabrum*.

14. Narrow-leaved, Bush Hawkweed.
Hieracium fruticosum angustifolium.

The root is fibrous.

The stalk is firm, upright, brown, and a yard high.

The leaves are long, narrow, of a pale green, and indented at the edges.

The flowers are large, and of a fine yellow: they stand at the tops of the branches.

It is common in woods, and flowers in August.

C. Bauhine calls it *Hieracium fruticosum angustifolium majus*.

The leaves of this species are sometimes scarce at all indented; and, according to the degree of shade, they will be more or less hairy. Under these differences it has been described by some as three distinct plants.

15. Golden Lungwort. *Hieracium murorum pilosissimum.*

The root is composed of numerous, brown fibres.

The stalk is round, branched, and two feet high; and it is extremely hairy.

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The leaves have long footstalks; and they are large, oblong, broad, lightly indented, and extremely hairy, like the stalk.

The flowers are numerous, and of a bright yellow.

It is frequent on walls, and on dry banks, flowering in August.

C. Bauhine calls it *Hieracium murorum folio pilosissimo*. Others, *Pulmonaria Gallica*.

16. Narrow-leaved golden Lungwort. *Hieracium pulmonaria distum angustiore folio.*

The root is fibrous.

The stalk is firm, upright, two feet high, and not branched.

The leaves are long, and moderately broad, of a fine green, covered with a white down; and they have long footstalks.

The flowers are large, and of a delicate yellow.

It is found in woods in our midland counties, flowering in July.

Ray calls it *Hieracium pulmonaria distum angustifolium*.

We have this and the former species on our cold, northern mountains, where they assume a somewhat different form. In the first species the leaves are more obtuse, and less hairy; and in this they are smaller: in both the stalks grow up to a great height, but with few leaves.

These varieties have by some been described as distinct species; but they are no more than accidents of growth.

17. Great single-flowered Mountain Hawkweed.
Hieracium flore magno singulari.

The root consists of numerous fibres, connected to a small head.

The leaves are spread in a rounded cluster; and are oblong, broad, obtuse, and hairy.

The stalk rises in the centre: it has no leaves, and it supports only a single flower: this is very large, and yellow.

We have it in Wales, and the north of England. It flowers in June.

Ray calls it *Hieracium villosum Alpinum flore magno singulari caule modo*.

It resembles mouse-ear.

18. Single-flowered Bush Hawkweed.

Hieracium nemorum flore singulari.

The root is long, and is hung with many fibres.

The stalk is firm, a foot high, hairy, and of a brownish colour.

The leaves are numerous, oblong, broad, dented at the edges, of a pale green, and very hairy.

The flower stands singly on the top of the stalk; and is very large, and of a gold yellow.

We have it in woods, flowering in July.

Ray calls it *Hieracii seu pilosellae majoris species humilis foliis longioribus rarius dentatis plurimus simul flore singulari*.

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When this grows in a less shaded situation, the leaves are few, and deeper cut; and there are sometimes more flowers than one; and, where much exposed to cold, the leaves will be crumpled,

and smaller. In both these states we find it in our northern counties; and it has been described as so many distinct species, in these appearances.

DIVISION II. FOREIGN SPECIES.

Red-flowered Hawkweed.

Hieracium flore rubente.

The root is long, and hung with many fibres. The leaves rising from it are numerous, broad, hairy, and of a dark green.

The stalk is a foot high, round, and very hairy: at the top grow numerous footstalks, supporting the flowers.

These are moderately large, and of a deep orange scarlet.

It is a native of Spain, and flowers in August.

C. Bauhine calls it *Hieracium bortenise floribus atro purpurascensibus*. Our people, *Grim the collier*.

All the hawkweeds are of the same general qualities, cooling and deobstruent; but their virtues are not sufficient to bring them into esteem or practice.

GENUS IV.

MOUSE-EAR.

PILOSELLA.

THE flower is composed of numerous floscules, contained in a rounded cup, formed of numerous, tender, oblong, and narrow scales. The floscules are separately flat; and dented in five parts at the ends. The leaves are hairy; and there stands only one head or general flower on the top of each stalk.

Common Creeping Mouse-Ear.

Pilosella vulgaris repens.

The root is a tuft of whitish fibres. The leaves rise in a little cluster from this; and they are oblong, narrow, of a deep green, and very hairy: there rise with these some long, weak, trailing shoots, which take root at the ends; and these sending up other clusters of leaves, propagate the plant abundantly.

The stalk is slender, of a pale green, hairy, and four inches high.

One flower stands on its top; and this is large, and of a very beautiful pale yellow.

It is common on dry banks, flowering in May.

C. Bauhine calls it *Pilosella major repens bifuta*. Others only, *Pilosella*.

It is an excellent astringent; and may be given in powder of the whole plant against hæmorrhages, and overflowings of the menses.

A strong decoction of it is good against looseness attended with bloody stools.

GENUS V.

DANDELION.

DENS LEONIS.

THE flower is composed of numerous floscules, arranged in a common cup, composed of many scales, the inner ones of which are long, narrow, and strait; and the outer, fewer, broader, and naturally turned backwards at the end. Each floscule is narrow, and dented in five places at the end; and one flower stands on each stalk; which is also naked, or without leaves.

Linnaeus places this among the *syngenesia* with the others.

1. Common Dandelion.

Dens leonis vulgaris.

This is almost too common for description.

The root is long, and has many fibres.

The leaves are numerous, long, broad, of a fine green, deeply indented, and full of a milky juice.

The stalks are numerous, hollow, naked, and ten inches high.

One flower stands on the top of each; and this is large and yellow.

It is common by way-sides, and flowers all summer.

Nº XLIV.

C. Bauhine calls it *Dens leonis latiore folio*. Others, *Taraxacon*.

Beneficent Nature has in general made those things most common which are most useful; and this plant is an instance. It is excellent against obstructions of the viscera, and in the scurvy. It is also of great use in the gravel, operating powerfully, yet safely, by urine. The best method of taking it in a fit of the gravel, is in strong decoction: for the other cases the lower part of the stalks, blanched, are best eaten in the way of salad.

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2. Narrow-

2. Narrow-leaved Dandelion.

Dens leonis folio angustiore.

The root is long, and has many fibres.
The leaves are narrow, long, of a dark green, and divided into more and deeper segments than in the common kind.

One flower stands at the top of each stalk; and this is large, and yellow.

The seeds are redish, and are winged with down. Those of the common kind are yellow.

It is frequent in gardens and pastures, flowering all summer.

C. Bauhine calls it *Dens leonis angustiore folio*.

3. Rough Dandelion.

Dens leonis hirsutus. Pl. 63. 5

The root is long, thick, and furnished with many fibres.

The leaves are oblong, broad, and hairy: they are of a pale green, and deeply divided.

The stalk is naked, but hairy; and at its top stands one large yellow flower.

It is frequent in pastures, and flowers in July.

C. Bauhine calls it *Hieracium asperum flore magno dentis leonis*. Others, *Dens leonis asper*, and *Dens leonis hirsutus*.

4. Narrow-leaved Mountain Dandelion.

Dens leonis foliis integris. Pl. 63. 4

The root is long and thick.

The leaves are long, narrow, and undivided: they are of a pale green, and lightly hairy.

The stalk is naked, and eight inches high, and the flower large and yellow.

We have it in Wales, and some of our mountainous counties. It flowers in August.

C. Bauhine calls it *Hieracium montanum angustifolium incanum*.

5. Branched Dandelion.

Dens leonis ramosus.

The root is long and slender.

The leaves are very long, narrow, irregularly divided, and of a faint green.

The stalk, which naturally rises single, as in the others, is sometimes in luxuriant soils split into two or three divisions.

The flowers are small and yellow; and the seeds are blackish.

We have it in pastures in Suffex. It flowers in June.

Petiver calls it *Dens leonis ramosus glaber*; and it is so named by Dillenius.

G E N U S VI.

GOATS-BEARD.

T R A G O P O G O N.

THE flower is composed of numerous floscules, arranged together in a simple cup, formed of eight long and pointed parts, which unite in one common body at the base. Each floscule is flat, short, and indented in five places at the top. The leaves of the plant are grassy, long, and narrow.

Linnaeus arranges this with the rest among his *Lyngensia*.

1. Common Goats-Beard.

Tragopogon vulgaris. Pl. 63. 5

The root is long and large, of a white colour, and well tasted.

The stalk is round, upright, jointed, not unfrequently branched, and two feet high.

The leaves are numerous, very long, slender, and of a fine green, with a tinge of bluish or greyish.

The flowers are large and yellow: they terminate the stalk and branches; and the leaves or segments of the cup exceed the body of the flower in length.

It is common in hilly pastures, and flowers in June.

C. Bauhine calls it *Tragopogon pratense luteum majus*.

2. Purple Goats-Beard.

Tragopogon flore purpureo. Pl. 63. 6

The root is long, thick, white, and fleshy; and is of a very agreeable taste.

The stalk is round, thick, jointed, and two feet or more in height.

The leaves are of a bluish green, very long, moderately broad, and sharp-pointed.

The flowers stand at the tops of the stalks; and they are very large and purple.

It is found wild in meadows in the north of England, and flowers in July.

C. Bauhine calls it *Tragopogon purpureo-ceruleum quod artisti vulgo*.

This and the common kind have the same qualities. Their roots are pleasant; and this last is kept in gardens for the service of the table, where it is called *falsafie*.

They operate gently by urine, and are good against the gravel.

The last kind is best tasted; but the other has most virtue.

G E N U S VII.

SUCCORY.

C I C H O R E U M.

THE flower is composed of numerous floscules, ranged in a common cup; which, before it opens, is of a cylindric figure. Thirteen scales or leaves form it; and of those eight are narrow and oblong: these stand inward, and form the cylindric part. The other five are broader, shorter, and placed outward. Each floscule is flat, and deeply indented in five places at the edge. The seeds have no downy matter annexed to them.

1. Wild Succory.

Cichorium sylvestris. Pl. 63. 7

The root is long and slender.

The stalks are thick, of a deep green, two feet high, but very irregular in their growth, frequently branched, and placed obliquely rather than upright.

The leaves are long, moderately broad, of a fine green, and deeply divided into toothed segments.

The flowers are large and blue: they stick to the stalks at the insertions of the leaves, and sometimes also terminate the branches.

It is common in waste places, and flowers in August.

C. Bauhine calls it *Cichorium sylvestris vel officinarum*.

The garden-succory differs in nothing from it but culture.

It possesses the virtues of dandelion, but in a more powerful degree, operating strongly by urine, and removing obstructions of the viscera.

The best method of taking it is in a strong infusion of the fresh-gathered root.

G E N U S VIII.

NIPPLEWORT.

L A M P S A N A.

THE flower is composed of about sixteen petals, placed in a common cup; which is of an oval form, and angulated, and made of fourteen scales. Eight of these constitute the inner part; and they are long and narrow: six form the outer part at the base; and they are short. Each floscule is lightly divided into five parts at the end. The seeds have no down.

Linnaeus ranges this, the following and preceding, with the rest, among the *Lyngensia*.

1. Common Nipplewort:

Lampisana vulgaris. Pl. 63. 8

The root is long, and hung with many fibres.

The stalk is upright, a yard high, of a faint green, and divided into many branches.

The leaves are large, oblong, broad, of a dusky green, and lightly and irregularly notched near the base, especially those toward the bottom of the stalk.

The flowers are very small and yellow; but they are numerous at the tops of all the branches.

It is common in waste ground, and flowers in July.

C. Bauhine calls it *Soncho affinis lampisana domestica*.

2. Dwarf Nipplewort, called Swines Succory.

Lampisana minima. Pl. 63. 9

The root is long, slender, and hung with a few fibres.

The leaves are numerous and oblong, a little notched at the edges, and of a dusky green.

The stalk is naked, and sometimes single, sometimes divided; of a pale green, and six inches high.

The flowers are small and yellow; and they terminate the stalks and branches.

It is found in corn-fields, and flowers in June.

C. Bauhine calls it *Hyseris*.

The root of the common nipplewort is recommended as diuretick and deobstruent, but it is not used.

S E R I E S II.

FOREIGN GENERA.

Those of which there is no species native of this country.

G E N U S I.

GUM-SUCCORY.

C H O N D R I L L A.

THE flower is composed of numerous floscules, arranged in a common cup. This is of a cylindric form, and is composed of numerous scales, of two kinds; those of the cylinder are oblong and narrow, those at the base short and broader. Each floscule is flat, short, and dented in five places at the end. The seeds are winged with down.

Linnaeus places this with the others among the *Syngenesia*, the filaments supporting united buttons in a cylindric form.

Blue-flowered Gum-Succory.

Chondrilla flore caerulea. 1763. 11

The root is long, thick, and hung with innumerable fibres.

The stalk is upright, firm, round, purplish, and divided at the top into a few branches.

The leaves are long, narrow, and very beautifully divided: they are cut into numerous, slender segments, like the pinnated leaves.

The flowers grow at the tops of the branches; and are large and blue.

It is a native of Italy, and flowers in July.

C. Bauhine calls it *Chondrilla caerulea*.

G E N U S II.

GARDEN-LETTUCE.

L A C T U C A H O R T E N S I S.

THE flowers are composed each of numerous floscules, arranged in a common cup. This is of an oblong figure, and rounded at the base; and is composed of numerous, short, soft, and pointed scales. The floscules on each are narrow, flat, and divided at the end into four segments. The seeds are winged with a simple down.

Common Lettuce.

Lactuca vulgaris. 1763. 10

The root is composed of numerous fibres, connected to an oblong head.

The leaves are naturally oblong, broad, irregularly waved at the edges, and obtuse at the ends; but in these, culture makes innumerable varieties and luxuriancies.

The stalk is round, thick, two feet high, and of a pale green.

The leaves stand close upon it, and surround it at the base; and they are oblong and broad, as the others.

The flowers are small, and of a pale yellow. It is a wild plant in Italy, flowering in August.

C. Bauhine calls it *Lactuca sativa*.

G E N U S III.

S C O R Z O N E R A.

THE flower is composed of numerous floscules, arranged in a common cup. This is of a cylindric figure; and is formed of about fifteen leaves, which are long and narrow. Each floscule is flat, and dented in five places at the end. The seed is winged with down.

Linnaeus places this and the preceding among the *Syngenesia*.

Tall, narrow-leaved Scorzonera. 1763. 12

Scorzonera foliis longioribus angustis.

The root is long and slender.

The stalk is round, firm, upright, and two feet high.

The leaves are very numerous, long, narrow, of a pale green, and sharp pointed.

The flowers stand at the tops of the branches; and are large and purple.

It is a native of Italy, and flowers in July.

C. Bauhine calls it *Scorzonera angustifolia subcaerulea*.

G E N U S

G E N U S IV.

ENDIVE.

E N D I V I A.

THE flower is composed of numerous floscules, ranged in a common cup. This is of a cylindric form; and is composed of eight oblong scales, with five smaller at the base, and very short. Each floscule is divided deeply into five segments at the edge; and the seed is flattish.

Linnaeus places this with the rest among the *Syngenesia*.

Common Endive.

Endivia bortenfis. 1763. 10.

The root is composed of innumerable fibres, connected to an oblong head.

The leaves are oblong, broad, and obtuse at the end: culture fringes them at the edges, but naturally they are plain.

The stalk is thick, upright, and two feet high.

The leaves stand close on this, and resemble those from the root.

The flowers are large and blue.

It is wild in Italy, and flowers in June.

C. Bauhine calls it *Intibus sativa lasifolia*.

This and the preceding are cooling, deobstruent, and diuretick; but fitter to be taken in foods than as medicines.

The END of the TWENTY-SIXTH CLASS.



BRITISH HERBAL.

CLASS XXVI.

Plants whose flower is composed of numerous floscules, arranged together in a common cup; and forming a rounded disk, naked or encircled with petals; whose seeds are winged with down; and whose stalks and leaves have not the milky juice, distinguishing the preceding class.

THESE, though allied to the plants of the last class, are separated perfectly from them by the form of the general flower, and disposition of the floscules. The later writers, influenced only by the form and arrangement of minuter parts, have been blind to this: but Ray, and others, long preceding them, observed it. They call them the composite, discoide-flowered plants; and their distinction is so obvious, as well as certain, that none have erred about it.

SERIES I.

Natives of BRITAIN.

Those of which one or more species are naturally wild in this country.

GENUS I.

COLTSFOOT.

TUSSILAGO.

THE flower is composed of numerous floscules, arranged in form of a disk, and placed in a common cup. This is of a cylindric shape, and consists of about twenty scales. The floscules in the disk are tubular; and they are edged with some flat ones in manner of rays; and one flower only stands on each stalk.

Linnaeus places this, with all the succeeding genera of this class, among the *syngenesia*, the buttons coalescing into a cylinder.

DIVISION I. BRITISH SPECIES.

Common Coltsfoot:

Tussilago vulgaris. *Pl. Co. 34. 16*

This differs from the generality of plants in the manner of its growth, the flowers appearing at

one season, and the leaves at another: we have therefore represented it in two figures.

The root is long, white, and creeping.

The stalks which support the flowers are numerous, thick, juicy, purplish, eight inches high;

The BRITISH HERBAL.

447

high; and they have imperfect membranes by way of leaves.

The flowers are large, and of a beautiful yellow: one stands on the top of each stalk.

After these appear the leaves: they are large, roundish, supported on long footstalks; and of a deep green, but pale underneath, and downy.

The flowers appear early in spring, the leaves soon after.

It is common in clayish soils.

C. Bauhine calls it *Tussilago vulgaris*.

It is a celebrated and excellent pectoral. The best method of giving it is in form of a syrup, made of the juice of the leaves with honey. It is thus of excellent service in asthmas, coughs, and soreness of the breast.

DIVISION II. FOREIGN SPECIES.

Alpine Coltsfoot.

Tussilago Alpina purpurea. *Pl. Co. 15*

The root is long and creeping.

The leaves are placed on short, purplish footstalks; and they are small, of a roundish shape, and dented at the edges, of a deep green on the upper side, and woolly underneath.

The stalk is hollow, purplish, round, and eight inches high. On its top stands a single flower, very large, and of a beautiful purple.

It is a native of Germany, and flowers in April.

C. Bauhine calls it *Tussilago Alpina rotundifolia canescens*.

GENUS II.

FLEABANE.

CONYZA.

THE flower is composed of numerous floscules, placed in a common cup. Those in the disk are tubular; and they are surrounded with flat ones in the verge, disposed as rays. The cup is of a cylindric form, short, and composed of numerous scales. The seeds are winged with slight down.

Linnaeus places this among the *syngenesia*: but he makes a strange distribution of the species among many distinct genera of other names.

1. Middle Fleabane.

Conyza flore majore lutea. *Pl. Co. 16*

The root is composed of thick fibres.

The stalk is round, hairy, whitish, and two feet high.

The leaves are oblong, broad, and of a faint green: they are clammy to the touch, and have a strong, disagreeable smell.

The flowers stand at the tops of the branches, and are large and yellow.

It is common in wet places, and flowers in June.

C. Bauhine calls it *Conyza media asteris flore lutea*. Others, *Conyza media*.

2. Small Fleabane.

Conyza minor. *Pl. Co. 17*

The root is fibrous and brown.

The stalks are round, brownish, a foot high, and very much branched.

The leaves are oblong, broad, obtuse, and of a brownish green.

The flowers stand at the tops of the branches;

and are yellowish, and usually naked; but occasionally they have short rays about the verge.

It is common in watery grounds, and flowers in August.

C. Bauhine calls it *Conyza minore flore globosa*.

3. Jagged Fleabane.

Conyza palustris foliis laciniatis. *Pl. Co. 101*

The root is fibrous and redish.

The stalk is upright, firm, and divided into many branches.

The leaves are long, narrow, sharp-pointed, and very beautifully serrated on the edges.

The flowers stand at the tops of the branches; and they are numerous, large, beautifully radiated, and yellow.

It is found in our fen-counties, and flowers in July.

C. Bauhine calls it *Conyza aquatica laciniata*. Others, *Conyza major*.

The juice of fleabane is said to be an excellent pectoral; but it is unpleasant, and is not used.

GENUS

G E N U S III.

S T A R W O R T.

A S T E R.

THE flower is composed of numerous floscules, placed in a common cup. This is formed of very numerous scales, placed over one another. The floscules in the disk are tubular, and those on the edge flattened; and the seeds have a fine down fixed to them. Linnaeus ranges this among the *syngenesia* with the others.

DIVISION I. BRITISH SPECIES.

1. Starwort, called Golden Sampire.
After crithimum crysanthemum distus.

The root is large, and hung with many fibres. The stalk is round, upright, juicy, green, and rarely branched.

The leaves are of a singular figure: they are long, narrow, and divided into three parts at the end. Their colour is a pale green; and they are of a fleshy substance.

The flowers are large, and of a fine yellow: one usually terminates the stalk.

We have it on our western coasts. It flowers in July.

C. Bauhine calls it *Crithimum maritimum flore aëris Attici*.

2. Sea-Starwort.
After Tripolium distus.

The root is long, and furnished with many fibres.

The stalk is round, upright, and three feet high.

The leaves are long, narrow, and of a pale green, obtuse at the ends, and not at all divided at the edges.

The flowers stand in numbers at the tops of the branches; and are large and blue.

It is common about salt rivers, and flowers in August.

C. Bauhine calls it *Tripolium majus caeruleum*.

DIVISION II. FOREIGN SPECIES.

- Narrow-leaved African Starwort.
After purpurascens angustifolius Africanus.

The root is long, and furnished with many fibres.

The stalk is upright, branched, and four feet high.

The leaves are large, but very narrow, of a

3. Small Starwort, called Blue, sweet Fleabane.

After arvensis caeruleus acris.

The root is long, and has a few fibres.

The stalk is hairy, upright, and a foot high, of a redish colour, and toward the top branched.

The leaves are oblong, broad, of a dusky green, and hairy.

The flowers are moderately large, and of a purplish blue: they stand at the tops of the branches.

We have it on barren grounds, flowering in April.

C. Bauhine calls it *Conyza caerulea acris*. Others, *After caeruleus arvensis*.

4. Starwort, called Dwarf Fleabane.

After conyza Canadensis annua acris dista.

The root is small and fibrous.

The stalk is round, redish, upright, and a foot high.

The leaves are long, narrow, and of a lively green.

The flowers stand at the tops of the branches, and are small and white.

It is found in many parts of England, but seems owing to seeds scattered and blown out of gardens. It flowers in May.

Boccone calls it *Conyza Canadensis annua olis acris Linariae foliis*. Others, *Conyzella*.

G E N U S IV.

W I L D C A R L I N E.

C N I C U S.

THE flower is composed of numerous floscules, placed in a common cup. This is large, and is formed of numerous small scales. The floscules are tubular, and divided into five parts at the edge; and they are surrounded with shining, hard rays. Linnaeus places this among the *syngenesia*.

Wild

Wild Carline.

Cnicus carlina sylvestris distus.

The root is long, slender, and hard.

The stalk is upright, firm, of a yellowish green, and hairy.

The leaves are long, moderately broad, full of prickles, and of a shining green.

The flowers are large, and of a dusky yellow: they terminate the branches, and rise also from the bosoms of the leaves.

We have it in dry pastures, flowering in August.

C. Bauhine calls it *Cnicus sylvestris spinosior*. Others, *Carlina sylvestris*.

G E N U S V.

E L E C A M P A N E.

H E L E N I U M.

THE flower is composed of numerous floscules, arranged in a common cup. This is large, and composed of many loose scales. The floscules are of two kinds, tubular in the centre, and flat or ligulated at the edge; and the buttons on the threads have bristles behind them. Linnaeus places this among the *syngenesia*.

Common Elecampane.

Helenium vulgare.

The root is very large and thick, brown, fleshy, and of an aromatic taste.

The stalk is five feet high, very thick, firm, and not much branched.

The leaves are large, oblong, pointed, and of a yellowish green.

The flowers grow at the tops of all the branches; and they are large and yellow.

We have it wild in pasture-grounds in Yorkshire. It flowers in July.

C. Bauhine calls it *Helenium vulgare*. Others, *Enula campana*, and some *Inula*; Linnaeus among others.

The root is an excellent pectoral, and possesses many other virtues. It is subastrigent and diaphoretick. It is given with most success in coughs, and disorders of the lungs; and is no way better than eaten candied.

G E N U S VI.

G O L D E N R O D.

V I R G A A U R E A.

THE flower is composed of numerous floscules, arranged in a common cup. This is oblong and scaly, and is formed of many oblong parts. The floscules in the centre are tubular, and those which surround them on the edge flat. Linnaeus places this with the others among the *syngenesia*.

DIVISION I. BRITISH SPECIES.

1. Common Golden Rod.

Virga aurea vulgaris.

The root is composed of numerous fibres, connected to an oblong head.

The stalk is upright, and two feet high; and it is loaded with many branches.

The leaves are oblong, broad, and of a deep green.

The flowers are very numerous, and of a fine gold yellow: they stand at the tops of the stalks and branches.

It is common in dry places, and flowers in August.

C. Bauhine calls it *Virga aurea angustifolia minus serrata*. Others, *Virga aurea vulgaris*, and simply *Virga aurea*.

2. Marsh Golden Rod.

Virga aurea palustris.

The root is fibrous and white.

The stalks are numerous, slender, upright, N° XLV.

and two feet high: they are usually of a redish colour, and are not much branched.

The leaves are long, narrow, and beautifully serrated at the edges.

The flowers stand in great numbers at the tops of the branches, and are large and yellow.

It is a native of our fen-counties, and flowers in June.

C. Bauhine calls it *Conyza palustris serratifolia*.

3. Small, serrated-leaved Golden Rod.

Virga aurea humilis foliis serratis.

The root is composed of numerous fibres, connected to a small head.

The stalks are tough, upright, very much branched, and a foot high.

The leaves are placed on long footstalks; and are narrow, and serrated at the edges.

The flowers are numerous, small, and yellow.

It is found in our hilly northern and western counties, flowering in July.

Ray calls it *Virga aurea vulgaris humilis*.

5 Y

4. Narrow-

4. Narrow-leaved hoary Golden Rod.

Virga aurea angustifolia incana. Pl. 4. 10

The root is composed of numerous, thick fibres. The stalk is round, redish, and six or eight inches high.

The leaves are long, narrow, obtuse, of a pale green, and a little hairy.

The flowers stand in clusters at the top of the stalk, and on long footstalks from the bosoms of the leaves: it is not uncommon in the west of England, and flowers in August.

Ray calls it *Virga aurea montana folio angustifoliusculis conglobatis*.

5. Broad-leaved, indented Golden Rod.

Virga aurea folio angustifolius serrato maximo. Pl. 4. 11

The root is long and creeping, and is hung with numerous fibres.

DIVISION II. FOREIGN SPECIES.

Knotted American Golden Rod.

Virga aurea ad alas florida. Pl. 4. 11

The root is long, and furnished with many fibres.

The stalks are numerous, weak, but tolerably upright, of a pale green, and two feet or more high.

The leaves are broad, short, and beautifully serrated, sharp-pointed, and of a fine green.

GENUS VII.

RAGWORT.

JACOBÆA.

THE flower is composed of numerous floscules, ranged in a common cup. This is short, of a cylindric figure; and composed of numerous, oblong, pointed scales. The floscules are of two kinds, tubular in the centre of the disk, and flat at the verge; the flower being radiated. The seeds are winged with a fine down.

DIVISION I. BRITISH SPECIES.

1. Common Ragwort.

Jacobæa vulgaris. Pl. 4. 12

The root consists of numerous, thick fibres, connected to a small head.

The stalk is upright, thick, not much branched, and two feet high.

The leaves are divided into five segments, and are of a deep green.

The flowers stand in great clusters at the tops of the stalks; and are large, and yellow.

It is common by way-sides, and flowers in June.

C. Bauhine calls it *Jacobæa vulgaris laciniata*.

2. Hoary, groundsel-leaved Ragwort.

Jacobæa senecionis folio incana.

The root is fibrous and whitish.

The stalk is two feet high, redish, upright, and not much branched.

The leaves are large, divided, and of a greyish green on the upper-side, and whitish underneath.

The stalk is round, upright, and toward the bottom redish; and it is four feet high.

The leaves are long, broad, sharp-pointed, elegantly serrated at the edges, and of a fine green.

The flowers stand in great numbers on the tops of the branches, into which the stalk divides at the summit; and they are large and yellow.

We have it in dry, waste grounds in our northern counties. It flowers in July.

C. Bauhine calls *Virga aurea angustifolia serrata*. Others, *Solidago sarracencia*, *Saracen's confound*.

All the kinds of golden rod are astringent and vulnerary; but they are not used at present.

The flowers are numerous and small: they stand at the top of the stalks, and in the bosoms of all the leaves, in clusters; and they are small and yellow.

It is a native of Virginia, and flowers in July.

Plukenet calls it *Virga aurea ad foliorum alas florifera*.

4. Mountain-Ragwort. *Pl. 4. 14**Jacobæa montana foliis integris.*

The root is oblong, small, and hung with large fibres.

The stalk is upright, smooth, redish, and ten inches high.

The leaves, contrary to the rest of the species, and to the name, are undivided: they are oblong, and of a pale green, and woolly.

The flowers stand at the tops; and they are large and yellow.

It is frequent in our mountainous counties, and flowers in June.

C. Bauhine calls it *Jacobæa montana lanuginosa angustifolia non laciniata*.

The root of the common ragwort is astringent and vulnerary: it is best given in decoction; but it is not much used.

DIVISION II. FOREIGN SPECIES.

Sea Ragwort.

Jacobæa vulgaris. Pl. 4. 15

The root is composed of numerous fibres.

The stem is hard, woody, and divided into many branches.

The leaves are deeply divided into segments;

and they are of a dusky green on the upper-side, and perfectly white underneath.

The flowers stand at the tops of the branches, and are of a bright yellow.

It is common by the sea-coasts, and flowers in June.

C. Bauhine calls it *Jacobæa maritima cinerea*.

GENUS VIII.

GROUNDSELL.

SENECIO.

THE flower is composed of numerous floscules, ranged in a common cup. This is short, and formed of many oblong scales. The floscules are of two kinds. Those in the centre of the disk are short and tubular; and those on the verge are somewhat flattened; but the flower is naked, not radiated. The seeds are winged with down.

Linnæus places this among the *Syngenesia*.

1. Common Groundsell.

Senecio vulgaris. Pl. 4. 16

The root is formed of many fibres, joined to a small head.

The leaves are long, and irregularly sinuated at the edges.

The stalk is round, tender, thick, redish, and ten inches high.

The leaves on this resemble those from the root, and all are of a pleasant green.

The flowers stand at the tops; and they are small and yellow.

It is too common in cultivated grounds, and flowers all summer.

C. Bauhine calls it *Senecio minor vulgaris*. Others, *Erigeron*.

The stalk is two feet high, round, slender, not robust, nor much branched.

The leaves are oblong; and they are deeply and irregularly divided at the edges: these and the stalk are of a pale, greyish green; and are covered with a loose cottony matter.

The flowers are small and yellow.

It is common by road-sides, and flowers in June.

The leaves have an ill scent, and are often clammy to the touch.

C. Bauhine calls it *Senecio incanus pinguis*. Others, *Erigeron tomentosum*.

3. Small, broad-leaved Groundsell.

Senecio minor latiore folio.

The root is fibrous.

The stalks are thick, irregularly branched, and ten inches high.

The leaves are of a deep green, and of a fleshy substance; oblong, broad, and slightly sinuated.

The flowers are small and yellow, and edged.

We have it on barren grounds. It flowers in August.

C. Bauhine calls it *Senecio minor latiore folio sive montana*.

2. Cottony Groundsell.

Senecio hirsutus odoratus. Pl. 4. 17

The root is long, and hung with many fibres.

An infusion of the leaves operates gently and easily by vomit.

The fresh roots smelt strongly as soon as taken out of the ground, are an immediate cure for the headach. This is communicated to me by Isaac Ware, Esq; to whom an accident first discovered it.

4. Mountain-

4. Mountain-

G E N U S IX.

B U T T E R - B U R .

P E T A S I T E S .

THE flower is composed of numerous floscules, ranged in a common cup. This is of a cylindric figure; and is formed of about twenty little, soft leaves. The floscules are tubular; and the flowers stand in a spike upon stalks, which rise before the leaves.

Linnaeus places this with the rest among the *syngenesia*.

1. Common Butter-Bur.

Petasites vulgaris. *Pl. 65. 1. 2.*

The root is long, thick, and creeping; of a strong smell, and bitter, aromatick taste.

The flower-stalks rise before the leaves; and they are thick, striated, tender, and of a pale flesh-colour, not at all branched, and about a foot high.

The flowers are small, and stand in a long, loose spike at the top of the stalk: they are of a pale flesh-colour.

The leaves appear soon after, and grow to an enormous size: they are roundish, and of a deep green on the upper-side, but whitish underneath; and they are placed on thick, whitish, hollowed footstalks.

It is common in rich wet soils, and flowers in April.

C. Bauhine calls it *Petasites major et vulgaris*. Others only *Petasites*.

The root is a very powerful cordial and sedative. An infusion of it is excellent in malignant fevers.

2. Butter-Bur, with long footstalks to the flowers.

Petasites floribus pediculis longis infidentibus.

The root is large and spreading.

The stalks supporting the flowers are two feet high, thick, whitish, juicy, and covered with slight membranes.

The flowers have long footstalks; and they are numerous, and form a long, loose spike: their colour is a pale red.

The leaves are very large, of a pale green above, and they have very little whiteness below.

It grows in meadows with us, not uncommon, and flowers in April.

Ray calls it *Petasites major floribus pediculis longioribus infidentibus*. The old authors did not know it.

G E N U S X.

P L O W M A N ' S S P I K E N A R D .

B A C C H A R I S .

THE flower is composed of numerous floscules, ranged in a common cup; and this is short, thick, and rounded. The scales composing it are numerous, and they stand separate at the points. The floscules are small and tubular, and the leaves of the plant are undivided.

Linnaeus places this with the rest among the *syngenesia*.

Common Plowman's Spikenard.

Baccharis vulgaris. *Pl. 65. 2.*

The root is long, thick, divided, and spreading. The stalk is a yard high, firm, round, brownish, and divided into numerous branches.

The leaves are large, oblong, broad, of a dusky green, and undivided.

The flowers are naked, small, and of a dusky yellow.

It is common in dry, waste grounds, and flowers in July.

C. Bauhine calls it *Conyza major vulgaris*. Others, *Baccharis Monspeliensis*.

The whole plant has a fragrant smell.

It is a powerful diuretick, and excellent against the gravel. It is best taken in infusion.

G E N U S XI.

H E M P - A G R I M O N Y .

E U P A T O R I U M .

THE flower is composed of numerous floscules, arranged in a common cup. This is oblong; and consists of many narrow, pointed scales, laid over one another. The floscules are tubular, and divided into five segments at the edge.

Linnaeus places this with the others among the *syngenesia*, the buttons coalescing in a cylinder.

DIVISION I. BRITISH SPECIES.

Common Water Hemp-Agrimony.

Eupatorium vulgare. *Pl. 65. 1.*

The root is composed of numerous fibres, connected to a small head.

The stalk is round, of a pale green, four feet high, and not much branched.

The leaves are divided in the manner of fingers; and the segments are very large, oblong, sharp-pointed, serrated, and of a pale green.

The flowers stand at the tops of the stalks in vast tufts; and are of a pale flesh-colour.

It is common by waters, and flowers in June.

C. Bauhine calls it only, *Eupatorium Cannabinum*. Others, *Eupatorium Cannabinum mas*.

The leaves of this plant are sometimes undivided at the upper part of the stalks; and in this condition it has been described by some as a distinct species; but erroneously, for it is only a slight variety.

It is a powerful diuretick and deobstruent. An infusion of the leaves is good against the gravel; and in the beginnings of dropsies.

A strong decoction of the fresh root is a rough purge.

DIVISION II. FOREIGN SPECIES.

American Hemp-Agrimony.

Eupatorium Americanum. *Pl. 65. 5.*

The root is composed of numerous fibres, connected to a small head.

The stalk is firm, round, upright, of a reddish colour, dusted over with grey, and is four feet high.

The leaves stand four at a joint; and they are

oblong, broad, serrated, rough to the touch, and of a dusky green.

The flowers are placed at the tops of the branches in small heads; and they are of a reddish purple.

It is common by rivers in Virginia, and flowers in August.

Cornutus calls it *Eupatorium Americanum sellii enule*.

G E N U S XII.

C U D W E E D .

G N A P H A L I U M .

THE flower is composed of numerous floscules, placed in a common cup. This is of a rounded figure, and formed of many oval, pointed scales. The floscules are tubular, and divided into five segments at the edge. The seeds are oblong, small, and winged with down.

Linnaeus places this with the rest among the *syngenesia*.

DIVISION I. BRITISH SPECIES.

1. Sea-Cudweed.

Gnaphalium maritimum. *Pl. 65. 6.*

The root is long and woody.

The stalks are numerous, round, white, and not much branched, and about ten inches high.

The leaves are short, obtuse, and not at all divided; they are of a white colour, and very thick covered with a downy matter.

The flowers stand at the tops of the branches; and are large and beautiful, of a shining white on the edge, and a gold yellow in the middle.

We have it by our sea coasts. It flowers in June.

C. Bauhine calls it *Gnaphalium maritimum*; a name others have copied.

The whole plant has an agreeable smell.

2. Long-leaved, upright Cudweed.

Gnaphalium Anglicum longifolium erectum. *Pl. 65. 7.*

The root is long and slender.

The stalks are slender, upright, and a foot and half high.

The leaves are long and narrow; and whitish, as are also the stalks.

The flowers grow in small, black heads, in the bosoms of the leaves from the middle to the top of the stalk; and the plant is seldom at all branched.

It is common in woods and thickets, and flowers in June.

C. Bauhine calls it *Gnaphalium majus angusto oblongo folio*.

3. Common Cudweed.

Gnaphalium vulgare. *Pl. 65. 8.*

The root is fibrous.

The stalk is firm, upright, and ten inches high: it is of a tough substance, a whitish colour, and branched in a singular manner.

At the height of about seven inches there stands a single head of flowers, which terminates the main-stalk; and from this rise two or more branches, each having at its top another head.

These are of a yellowish brown; and the leaves are oblong and white; frequently also there rise other branches from the lower part of the stalk.

C. Bauhine calls it *Gnaphalium vulgare majus*. Others, *Herba impia*.

4. The least Cudweed.

Gnaphalium minimum. 1665.9

The root is slender, and has a few fibres.
The stalk is tough, white, four inches high, and very much branched.
The leaves are short and white.
The flowers grow in very small heads on the tops of the stalks; and are small, and pale coloured.

It is common in dry grounds, flowering in June.
C. Bauhine calls it *Gnaphalium minus repens*.

5. Black-headed, long-leaved Cudweed.

Gnaphalium longifolium humile ramosum. 1665.10

The root is composed of numerous long fibres.
The stalks are round, tough, six or eight inches high, and whitish; branched, and beset irregularly with leaves.

These are long, narrow, soft to the touch, and of a whitish colour.

The flowers stand in numerous, small, black heads at the tops of the stalks and branches.

It is common in damp places, and flowers in July.

C. Bauhine calls it *Gnaphalium medium*. Others, *Filago minor*.

6. Narrow-leaved Dwarf Cudweed.

Gnaphalium pumilum ramosissimum polyspermum.

The root is slender, and hung with a few fibres.

The stalks are numerous, three inches high, very much branched, and of a white colour.

The leaves are oblong, extremely narrow, and sharp-pointed: they are placed irregularly, and are of a whitish colour.

The flowers stand in the bosoms of the leaves in small heads, and in vast numbers.

It is common in corn-fields in Suffex, and flowers in July.

Ray calls it *Gnaphalium parvum ramosissimum*.

7. Great-headed Cudweed.

Gnaphalium capitulis majoribus latifolium.

The root is long, and has many fibres.

The stalk is round, whitish, tough, and not much branched.

The leaves are numerous, broad, oblong, obtuse at the ends, and white.

The flowers stand in large, brown heads, and are very permanent.

We have it in sandy grounds in Suffex. It flowers in August.

Petiver calls it *Gnaphalium Germanicum*.

8. Mountain-Cudweed.

Gnaphalium montanum flore magno.

The root is composed of many brown, tough fibres.

The stalks are numerous; and of these the greater part lie upon the ground, and do not exceed an inch and half in length: one or two rise up, and are four or five inches high: these are round, of a whitish green, and not branched.

The leaves are oblong, broad, hairy, of a pale green on the upper-side, and whitish underneath.

The flowers stand at the tops of the stalks; and they are very large, of a silvery white, or faintly dashed with purple.

We have it on mountainous heaths, but not common. It flowers in July.

C. Bauhine calls it *Gnaphalium montanum folio rotundiore*. Others, *Pes Catii*, *Cat's foot*.

There is a variety of this with longer leaves, which authors have erroneously described as a distinct species.

9. Tall American Cudweed.

Gnaphalium majus longifolium. 1665.12

The root is composed of numerous, slender fibres.

The stalk is round, thick, upright, and two feet high.

The leaves are very numerous; and they are oblong, narrow, and sharp-pointed, waved at the edges, and of a beautiful silvery white.

The flowers stand at the tops of the stalks in round silvery heads.

It is an undoubted native both of England and Wales, and is found in many places by the sides of rivers, flowering in August.

C. Bauhine calls it *Gnaphalium Americanum latifolium*. Others, *Gnaphalium Americanum*.

10. Cluster-leaved Cudweed.

Gnaphalium latifolium capitulis conglobatis.

The root is long, slender, and hung with a few fibres.

The stalk is round, upright, and whitish.

The leaves are placed alternately, and at considerable distances: they are oblong, broad, pointed at the end, and of a whitish green.

The flowers stand in round clusters at the tops of the branches; and are of a silvery white, with a tinge of straw-colour.

It is frequent in the Isle of Jersey, and in Ireland. It flowers in July.

C. Bauhine calls it *Gnaphalium majus lato oblongo folio*.

All the *cudweeds* possess the same virtues; but those are not enough regarded. They are recommended as vulneraries; and they are excellent against hæmorrhages.

The common *cudweed*, called *herba impia*, I had an opportunity of seeing lately tried with vast success. It is a known remedy in Suffex for cattle when they have bloody stools; and this led a farmer, whose name is Martin Wakes, to try it himself in an habitual flux of the belly, attended frequently with bloody stools. He dried the whole plant in an oven, and powdered it, sifting out the fine part, and throwing away the straws. He boiled also the fresh plant, cut to pieces, four handfuls to two quarts of water, till it was very strong.

He then took as much as would lie on a sixpence of the powder, and a glass of the decoction warm; whenever the bloody stools returned. This proved always a temporary; and in the end

an effectual remedy; for the complaint never troubles him now, nor has for several years. This I saw tried successfully; and the account

of a compleat cure comes well attested. It is therefore worth the attention of those who can introduce it universally.

DIVISION II. FOREIGN SPECIES.

Stinking Ethiopian Cudweed.

Gnaphalium fetidum. 1665.14

The root is long, and furnished with many fibres.

The stalk is round, upright, thick, rarely branched, and of a whitish colour.

The leaves are very broad, oblong, woolly, white, and without footstalks.

The flowers stand at the top of the stalks in oblong, yellowish heads.

It is a native of Africa, and flowers in July.

Plukenet calls it *Gnaphalium Ethiopicum latifolium fetidum*, the whole plant having a stinking smell.

The END of the TWENTY-SEVENTH CLASS.



BRITISH HERBAL.

CLASS XXVIII.

Plants whose flower is composed of many floscules, arranged in a discoide form; and whose seeds are not winged with down.

THESE are separated by Nature in a very distinct manner from all other plants: and the single circumstance of their seeds having none of that downy matter which is annexed to those of the two preceding divisions, is an obvious and unalterable mark of the class: it joins them to one another, while it excludes the rest of the discoide-flowered kinds.

This was a character Linnæus could not but perceive; and, to do him the justice due to his great accuracy in examination, he has never once omitted to name it; but unhappily the purpose of his system being to exclude all but the minuter parts from the distinctions of classes, he could not use it for this end.

SERIES I.

Natives of BRITAIN.

Those of which one or more species are naturally wild in this country.

GENUS I.

CORN MARYGOLD.

CHRYSANTHEMUM.

THE flower is composed of many floscules, of two kinds, arranged in a disk or rounded head, and surrounded with numerous petals as rays; and it is placed in a hemispheric cup, made of numerous and close-compacted scales. The floscules in the centre of the disk are tubular; those on the rim are flat, and the seeds are oblong.

Linnæus places this and all the succeeding genera of the present class among the *syngenesia*.

DIVISION I. BRITISH SPECIES.

1. Common Corn Marygold. *Chrysanthemum segetum vulgare*.

The root is long, and hung about with many fibres.

The stalk is slender, upright, very much branched, and two feet high.

The leaves are oblong, sharp-pointed, and fer-

rated at the edges; and their colour is a pale, bluish green.

The flowers terminate the branches; and they are large and yellow.

It is common in our corn-fields, and flowers in July.

C. Bauhine calls it *Bellis lutea foliis profunde incis.*

2. Small

2. Small-flowered Corn Marygold.

Chrysanthemum flore minore.

The root is composed of many long, white fibres.

The stalk is upright, branched, and two feet high.

The leaves are large, and deeply divided at

the edges, so as to resemble the pinnated kinds; and they are of a pale, bluish green.

The flowers are very numerous, small, and yellow.

We have it in corn-fields in some parts of the kingdom, but not frequent. It flowers in August.

Ray calls it *Chrysanthemum segetum nostras folio glauco multicaisso*.

DIVISION II. FOREIGN SPECIES.

Indian Corn Marygold. *Chrysanthemum latifolium Indicum*.

The root is long, white, and hung with a few fibres.

The stalk is round, purplish at the base, branched, and two feet high.

The leaves are broad, short, sharp-pointed, serrated at the edges, and of a bright green.

The flowers stand at the summits of the branches; and are large, and of a pale yellow.

It is a native of the East and West Indies, and flowers in August.

Plukenet calls it *Chrysanthemum Maderaspatanum oxycanthæ foliis*.

GENUS II.

OX-EYE.

BUPHTHALMUM.

THE flower is radiated, and composed of numerous floscules; and is placed in a rounded cup, formed of many slender leaves. The floscules in the central part of the disk are tubular, and those at the rim flat. The edge of the tubular floscules is cut into five segments; and the seeds are oblong.

Linnæus places this with the rest among the *syngenesia*.

Common Ox-Eye.

Buphtalmum vulgare. *Pl. 65. 17*

The root is long, and furnished with many fibres.

The stalk is round, upright, very much branched, and two feet and a half high.

The leaves are large, of a fine green, and very beautifully divided in a pinnated manner into ob-

long segments; which are sharp-pointed, and serrated at the edges.

The flowers stand at the tops of the branches; and are very large, and of a fine gold yellow.

We have it damp grounds in some of our northern counties. It flowers in August.

C. Bauhine calls it *Buphtalmum tanacetii minoris foliis*.

GENUS III.

SNEEZEWORT.

PTARMICA.

THE flower is radiated, and composed of numerous floscules; and is placed in a cup of an oval form, composed of small, sharp-pointed, and convergent scales. The floscules in the disk are tubular, and cut into five gaping segments at the edge: the floscules in the edge are few in number; and each is divided in a heart-like manner at the top, and has a very small segment in the midst of the division. The seed is oval.

Linnæus places this among the *syngenesia*, joining it under one common head with the *yarrow*, and calling the genus *Achillea*.

DIVISION I. BRITISH SPECIES.

Common Sneezewort.

Ptarmica vulgare. *Pl. 65. 10*

The root is long, slender, and hung with many fibres.

The stalk is round, upright, and two feet and a half high, of a pale green, and branched.

Nº 45.

The leaves are long, narrow, of a deep green, rough on the surface, sharp-pointed, and serrated at the edges.

The flowers are very numerous, small, and white: they stand in the tops of the branches.

It is common on damp ditch-banks, and flowers in August.

6 A

C. Bauhine

C. Bauhine calls it *Dracunculus serrato folio prae-
tensis*.
The leaves powdered, and snuffed up the nose,

occasion sneezing, and are excellent against in-
terate headachs. The young tops are of a sharp,
but pleasant taste; and may be eaten in fallads.

DIVISION II. FOREIGN SPECIES.

Virginian Sneezewort. *M65.19*

Piarmica Virginiana floribus conglomeratis.

The root is long, thick, and white.
The stalk is round, upright, branched, and a
yard high.

The leaves are broad, short, indented at the
edges, sharp-pointed, and of a deep green.

The flowers are small and white; and they are
placed in clusters at the tops of the branches.

It is a native of Virginia, and flowers in
July.

Morison calls it *Piarmica Virginiana Helenii
folio*. Others improperly make it a species of
maudlin.

GENUS IV.

YARROW.

MILLEFOLIUM.

THE flower is radiated, and composed of numerous floscules, arranged in an oval cup, com-
posed of short and broad scales. The floscules in the centre are tubular, and divided into five
gaping segments at the edge: those at the rim are heart-shaped, and flat. The seeds are short and
thick, and smaller at one end than the other.

Linnaeus ranges this among the *syngenesia*.

DIVISION I. BRITISH SPECIES.

Common Yarrow.

Millefolium vulgare. M66.1

The root is composed of many fibres, joined
to a small head.

The first leaves are very numerous, and of a
fine dark green, long, moderately broad, and di-
vided in a regular and beautiful manner into a
number of minute parts.

The flowers stand at the tops of the stalks;
which are upright, not much branched, and two

feet high, in round tufts like umbells; and they
are white, with a faint dash of purplish.

It is common by way-sides, and flowers in
June.

C. Bauhine calls it *Millefolium vulgare album*.

It is possessed of great virtues, though too
much neglected. It is excellent against over-
flowings of the menfes, and haemorrhages of all
kinds; as also in loofenesses attended with bloody
stools. The best way of taking it is in a strong
decoction.

DIVISION II. FOREIGN SPECIES.

Yellow Yarrow.

Millefolium flore luteo. M66.2

The root is long, slender, and hung with many
fibres.

The stalks are numerous, and a foot high; of
a whitish green, and not much branched.

The leaves are long, narrow, and divided

deeply into very minute segments, downy, and
of a fine deep green.

The flowers stand at the tops of the stalks in
large tufts, and are of a beautiful yellow.

It is a native of the warmer parts of Europe,
and flowers in July.

C. Bauhine calls it *Millefolium tomentosum lu-
teum*.

GENUS V.

DAISY.

BELELIS.

THE flower is radiated, and composed of many floscules of different kinds, arranged in a
common cup. This is formed of numerous, pointed segments, placed in a single series.
The floscules in the centre are tubular, and divided into five segments at the rim: those in the verge
are flat. The seeds are oval. The stalks are naked, having no leaves; and each supports only a
single flower.

Linnaeus places this among the *syngenesia*.

Common

Common Daisy.

Bellis vulgaris. M66.3

The root is composed of numerous, long, and
slender fibres.

The leaves rise from the head of it in a large
cluster; and they are oblong, broad, obtuse,
lightly serrated, and of a deep green.

The stalks rise among these in great number;
and are naked, and four inches high.

Each supports a single flower; which is white,

tinged in various degrees with red at the tips of
the rays, and in the centre yellow.

It is common in pastures, and flowers all sum-
mer.

C. Bauhine calls it *Bellis sylvestris minor*.

A decoction of the roots is an excellent astrin-
gent.

Gardens produce numerous varieties of double
flowers from this plant; and we sometimes also
see them double wild.

GENUS VI.

GREAT DAISY.

LEUCANTHEMUM.

THE flower is radiated; and is composed of many floscules, of two kinds, arranged in a com-
mon cup. This is formed of very numerous scales, growing larger as they stand more in-
ward, and in the whole is of a half-round shape. The floscules in the centre are tubular, and divided
into five open segments at the rim: those in the verge are oblong, flattened, and three-pointed.

Linnaeus ranges this with the rest among the *syngenesia*.

Great Daisy.

Leucanthemum vulgare. M66.4

The root is composed of numerous fibres, con-
nected to a small head.

The stalk is ribbed, upright, branched, and a
foot and half high.

The leaves are long, moderately broad, of a
deep green, and sharply serrated on the edges.

The flowers stand at the tops of the branches;
and are large and white, with the disk yellow.

It is common in our pastures, and flowers in June.
C. Bauhine calls it *Bellis sylvestris caule folioso
major*.

GENUS VII.

CHAMOMILE.

CHAMÆMELUM.

THE flower is radiated, and composed of two kinds of floscules, arranged together in a common
cup. This is of a hemispheric figure; and is formed of narrow, and nearly equal segments.
The floscules in the centre are tubular, and cut into five segments at the edge, which turn back.
Those in the verge are flat, and oblong.

Linnaeus places this among the *syngenesia*, and changes the name of the genus to *anthemis*.

1. Common Chamomile.

Chamamelum vulgare. M66.5

The root is fibrous.

The stalk is round, upright, slender, and
branched: it is a foot and half high, and of a
whitish colour.

The leaves are placed irregularly, and are of a
fine, strong green: they are divided into nume-
rous very slender segments, and are of an inoffen-
sive smell.

The flowers are large, the rays are white, and
the central part is yellow.

It is common in corn-fields, and flowers in
July.

C. Bauhine calls it *Chamamelum vulgare leu-
cantemum Dioscoridis*. Others, *Chamamelum
erectum*.

2. Sweet creeping Chamomile.

Chamamelum repens odoratum. M66.6

The root is composed of many very long,

thick, and tough fibres, and spreads far under
the surface.

The stalks are numerous, striated, of a pale
green, weak, and branched: they lie in part
upon the ground; and are a foot or more in
length.

The leaves are of a bright green, and deeply
divided into segments: they are of a very fragrant
smell.

The flowers are numerous, and terminate the
branches: they are white, but have a yellow disk;
naturally single, but easily doubled by culture.

It is common in damp places on heaths, and
flowers in July.

C. Bauhine calls it *Chamamelum nobile sive leu-
cantemum odoratum*. Others, *Chamamelum Ro-
manum*.

The flowers of this species are an excellent car-
minative and stomachick, and are dried for the
service of medicine. The single have most vir-
tue; but the double are more used.

3. Stinking

3. Stinking Mayweed.

Chamæmelum fetidum. Pl. 66. 7

The root is composed of numerous fibres, connected to a small, oblong head.

The stalk is upright, branched, and a foot and half high: it is of a purplish colour at the bottom, of a whitish green upwards, and striated.

The leaves are divided into very fine segments; and they are of a blackish green.

When bruised they have a most offensive and disagreeable smell.

The flowers stand at the tops of the branches; and are large and white, with a yellow disk.

It is common in waste ground, and flowers in May.

C. Bauhine calls it *Chamæmelum fetidum*. Others, *Cotula fetida*.

Its flowers have the same virtues with those of common chamomile.

4. Sea-Chamomile. *Pl. 66. 10**Chamæmelum maritimum crassius foliis.*

The root is composed of numerous, thick, long fibres.

The stalks are branched, weak, and in part procumbent, of a purplish colour at the bottom, and upwards of a pale green.

The leaves are oblong, and of a deep green, divided into numerous small segments, and of a thick substance.

The flowers are large and white, with a yellow disk.

It is found about our sea-coasts, and flowers in July.

Ray calls it *Chamæmelum maritimum perenne humilius*.

5. Great-flowered Chamomile.

Chamæmelum inodorum flore magno.

The root is fibrous.

The stalk is single, upright, branched, and a foot high.

The leaves are divided into numerous fine segments; and they are obtuse at the ends.

The flowers are large and white, with a yellow disk.

It is common among corn, and flowers in July.

C. Bauhine calls it *Chamæmelum inodorum*.

G E N U S VIII.

FEVERFEW.

M A T R I C A R I A.

THE flower is radiated, and composed of numerous floscules of two kinds, placed in a common cup. This is of a hemispheric form; and is composed of narrow, close, compacted, and nearly equal scales. The floscules in the centre are tubular, and divided into five gaping segments at the rim: those in the verge are flattened, oblong, and three-pointed. The seeds are oblong.

Linnaeus places this with the rest among the *syngenesia*.

Feverfew.

Matricaria vulgaris. Pl. 66. 9

The root is composed of numerous fibres, connected to an oblong small head.

2

6. Tall Chamomile with small flowers.

Chamæmelum elatius flore minore.

The root is composed of numerous, long, slender fibres.

The stalk is firm, upright, two feet high, and branched.

The leaves are cut into very small segments, and are of a faint green.

The flowers stand in great numbers at the tops of the branches; and are small, white; and yellow in the centre.

The stalk in this species is usually red.

It is common on plowed land, and flowers in July.

Ray calls it *Chamæmelum majus folio tenuissimo*.

7. Great-flowered procumbent Chamomile.

Chamæmelum caule procumbente floribus majoribus.

The root is long, slender, and hung with a few fibres.

The stalk is procumbent in great part, and is divided into many branches.

The leaves are large, divided into fine segments, and of a blackish green.

The flowers are few in number; but they are very large, white, with a yellow central disk.

It is common in damp, plowed fields, flowering in August.

Ray calls it *Chamæmelum inodorum annuum humilius*.

8. Broad-leaved Sea-Chamomile.

Chamæmelum maritimum latiore folio.

The root is fibrous.

The stalks are numerous, and a foot or more in length; but they lie in great part on the ground. Their colour is a pale green; and they are very much branched.

The leaves are broad, and of a pale green; and they are divided into numerous segments, which are also broader than in the other kinds.

The flowers are large and white, with a yellow disk.

It is frequent about our northern coasts, and flowers in July.

C. Bauhine calls it *Matricaria marina*. Ray, *Chamæmelum maritimum ramosius flore albo*.

The flowers stand in great numbers at the tops of the branches; and they are small and white, with a yellow disk.

It is common in waste ground, and flowers in June.

C. Bauhine calls it *Matricaria vulgaris*.

The flowers in this plant, and in the sweet chamomile, and some others, are deficient sometimes in the rays; whence they have been di-

vided into two species, and these imperfect plants, called *naked feverfew*, *naked chamomile*, and the like.

The virtues of *feverfew* are very great. It is an excellent deobstruent. It promotes the menses, and cures those hysterick complaints which rise from their obstruction. It also destroys worms.

G E N U S IX.

WATER HEMP-AGRIMONY.

V E R B E S I N A.

THE flower is composed of numerous floscules, enclosed in a common cup. The floscules are tubular, and divided at the rim into five pointed segments, which stand erect. There are sometimes flat floscules on the verge, but not constantly. The cup is formed of numerous, narrow, pointed, and hollowed scales. The seeds have points, and stick by them to any thing they touch.

Linnaeus places this among the *syngenesia* with the others.

1. Water Hemp-Agrimony, with divided leaves.

Verbesina foliis tripartitis. Pl. 66. 10

The root consists of numerous fibres, connected to a small head.

The stalks are upright, and a yard high, very much branched, and of a brownish colour.

The leaves are large, and divided into three principal segments; which are sharp-pointed and serrated; and they are of a deep green colour.

The flowers stand on the extremities of the stalks; and they are yellow: sometimes they are naked, and sometimes they have rays of a brighter yellow.

It is common by ditch-sides, and flowers in July.

C. Bauhine calls it *Cannabina aquatica folio tripartito diviso*.

2. Large-flowered Water Hemp-Agrimony.

Verbesina flore majore integrifolia.

The root is long, and hung with very numerous fibres.

The stalk is upright, not much branched, and two feet high.

The leaves are oblong, broad, sharp-pointed, and serrated, but not divided into three parts, as in the other.

The flowers are very large and yellow.

It is frequent in the west of England, and the flowers are almost always radiated. It flowers in August.

C. Bauhine calls it *Cannabina aquatica folio non diviso*.

3. Dwarf Hemp-Agrimony.

Verbesina pumila flore magno. Pl. 66. 11

The root is fibrous.

The stalk is single, upright, purplish, not at all branched, and ten inches high.

The leaves are oblong, moderately broad, sharp-pointed, serrated lightly on the edges, and of a brownish green.

The flowers stand at the tops of the stalks; and are naked, large, and yellow.

It is found in boggy places, and flowers in August.

Ray calls it *Verbesina minima*.

The virtues of these plants are not certainly known.

G E N U S X.

T A N Z Y.

T A N A C E T U M.

THE flower is naked, and composed of numerous floscules. These are all of one kind: they are tubular, and wide open at the mouth, where they divide into five reflex segments. These are all contained in a common cup; which is of a hemispheric figure, and is composed of numerous, pointed scales, close set together. The seeds are oblong.

Linnaeus places this with the rest among the *syngenesia*.

Common Tanzy.

Tanacetum vulgare. Pl. 66. 12

The root is composed of numerous fibres, connected to a small head.

The leaves are very large, and of a fine strong green: they are deeply divided into oblong segments.

N° XLVI.

7

ments, which are serrated and sharp-pointed, and often they are curled at the edges.

The stalk rises in the midst of a cluster of these; and is a yard high, upright, not much branched, and thick set with leaves, like those from the root.

The flowers grow in great clusters at the top

N° B

top

top of the stalks; and they are small and yellow.

It is common in hilly places in our northern counties, whence it has been brought into gardens. It flowers in July.

GENUS XI.

WORMWOOD.

ABSINTHIUM.

THE flowers are composed of numerous floscules, of two kinds, arranged in a common cup. Those in the centre are tubular, and those on the verge are flat, but naked. The cup is roundish; and is formed of numerous, rounded, convergent scales. The seeds are small and short.

Linnaeus places this among the *syngenesia*.

DIVISION I. BRITISH SPECIES.

1. Common Wormwood.

Absinthium vulgare. *Pl. 66. 13*

The root is long, and hung with many fibres. The stalks are numerous, whitish, a yard high, very much branched, and full of leaves: these are also of a whitish green, especially on the under side; and they are large, divided deeply in the pinnated manner into broad segments, and those again deeply divided.

The flowers stand in long series on the tops of the branches, and are of a pale brown.

It is common by way-sides, and flowers in June.

C. Bauhine calls it *Absinthium ponticum*. Others, *Absinthium vulgare*.

2. Sea-Wormwood.

Absinthium maritimum album. *Pl. 66. 14*

The root is composed of many fibres, connected to a small head.

The stalks are two feet high, divided into numerous branches, and of a whitish colour.

The leaves are divided into many small segments; and they are of a white colour, and tough substance.

The flowers stand at the tops of the stalks, and are small and brown.

It is common in our salt-marshes, and flowers in August.

C. Bauhine calls it *Absinthium seripbium Belgicum*.

3. Sweet Sea-Wormwood.

Absinthium maritimum odoris grati.

The root is composed of long, white fibres, joined to a small head.

DIVISION II. FOREIGN SPECIES.

Roman Wormwood.

Absinthium Romanum. *Pl. 66. 15*

The root is fibrous and creeping.

The stalks are numerous, woody, brown, and two feet high.

The leaves are set very thick upon them; and they are divided into numerous, slender segments.

C. Bauhine calls it *Tanacetum vulgare latum*.

It is diuretick and carminative, but is more used in food than medicine.

The stalk is a foot high, white, irregularly upright, and divided into numerous branches.

The leaves are oblong, and divided into a few broad segments; and they are white and woolly.

The flowers are small and brownish; and they stand upright at the tops of the branches.

It is found in our southern coasts, and flowers in July.

Ray calls it *Absinthium maritimum odoris grati*.

The common sea-wormwood has sometimes broader segments in the leaves, and has in this state of accidental variation been described by some as a distinct species, under the name of *Absinthium maritimum latiore folio*.

4. Spiked Sea-Wormwood.

Absinthium maritimum spicatum.

The root is long, slender, and hung with a few fibres.

The stalk is two feet high, upright, not much branched, and of a whitish colour.

The leaves are very beautifully divided into long, narrow segments; and they are of a greyish colour.

The flowers are disposed in small brown heads, which form a kind of spikes all along the tops of the branches.

We have it on the coast of Essex. It flowers in July.

J. Bauhine calls it *Absinthium seripbium tenuifolium maritimum Narbonense*. Barreliere, *Absinthium cinereum*.

This sometimes has the segments broader, and the leaves whiter; in which state it is by some described also as a distinct species.

Their colour is a greyish green; and they have an agreeable smell, and aromatick taste, with some bitterness.

The flowers grow toward the tops of the branches in little round brown heads.

It is a native of the warmer parts of Europe, and flowers in July.

C. Bauhine

C. Bauhine calls it *Absinthium ponticum tenuifolium incanum*.

All the kinds of wormwood are stomachick, and good against obstructions of the viscera. The common kind is the strongest, but insufferably nauseous. The sea-wormwood is the kind most

used, but the Roman wormwood is vastly preferable to them all. This sea-wormwood is sold in the markets under the name of Roman wormwood; and is almost universally used as such by the apothecaries: but the error is very great; and the other is so common in gardens, and lives and increases so freely in them, that a supply is easy.

GENUS XII.

SOUTHERNWOOD.

ABROTANUM.

THE flower is composed of numerous tubular floscules, arranged in a disk, with a few flat ones at the edge, but has no rays; and it is placed in a roundish cup, composed of short, broad scales.

Linnaeus places this among the *syngenesia*, with the rest of the corymbiferous and other composite-flowered kinds.

DIVISION I. BRITISH SPECIES.

Wild Southernwood.

Abrotanum campestre. *Pl. 66. 16*

The root is long, thick, and hung with many fibres.

The stalks are shrubby, upright, and very much branched: they are of a whitish colour toward the bottom, and redish toward the top.

The leaves are oblong, and divided into numerous very narrow segments; and their colour is a greyish green.

The flowers stand in thick spikes at the tops of the branches; and they are small and brown.

It is frequent by road-sides in our southern counties, flowering in July.

C. Bauhine calls it *Abrotanum campestre*.

DIVISION II. FOREIGN SPECIES.

Garden Southernwood.

Abrotanum hortense. *Pl. 66. 17*

The root is composed of many thick fibres, connected to a small head.

The stalks are numerous, woody, and a yard high, brown at the bottom, greyish at the top, and thick set with finely divided leaves, of a whitish green.

The flowers stand in brown heads at the tops of the stalks.

It is common in Spain and Italy wild, and with us every where in gardens.

C. Bauhine calls it *Abrotanum mas angustifolium majus*.

It is a powerful diuretick, and is good in hysteric cafes.

The best way of using it is in conserve made of the fresh tops, beaten up with twice their weight of sugar.

GENUS XIII.

MUGWORT.

ARTEMISIA.

THE flower is composed of numerous floscules, ranged in a common cup. These are tubular in the centre; and there are a few flat ones at the verge; but the whole flower is naked, not radiated. The cup is of an oval form, small, oblong, and narrow at the top; and it is composed of short, pointed scales.

Linnaeus places this with the rest among the *syngenesia*.

Common Mugwort.

Artemisia vulgaris. *Pl. 66. 18*

The root is composed of numerous, thick fibres, connected to a small head.

The stalk is a yard high, firm, upright, and branched, purplish toward the bottom, and pale upwards.

The leaves are very large; and they are deeply divided into segments, which are narrow and sharp-pointed: they are of a dusky green on the upper side, and white underneath.

The flowers stand along the tops of the branches in small brown heads, with a tinge of purplish.

It is common by way-sides, and flowers in August.

C. Bauhine calls it *Artemisia vulgaris major*.

It is an excellent medicine in hysteric complaints, and in all obstructions of the viscera. It is best taken in infusion.

GENUS

G E N U S XIV.

SCABIOUS.

S C A B I O S A.

THE flower is composed of numerous floscules, arranged in a common cup. This is formed of oblong scales in several series. Each floscule is tubular, and divided at the top into five segments; and has beside the common cup two, an outer and inner, peculiar to itself. The seeds are oval, and pointed.

Linnaeus separates this from the rest of the composite-flowered plants, by many classes, placing it among the *tetrandria*, the buttons not coalescing.

DIVISION I. BRITISH SPECIES.

1. Common Scabious.

Scabiosa vulgaris.

The root is composed of many thick fibres, united to a common head.

The leaves that rise first are oblong, broad, and of a pale green.

The stalk is two feet high, hairy, upright, not much branched, and of a pale green. The leaves on this are divided deeply on the edges.

The flowers stand at the tops of the stalks, and are large and blue.

It is common in corn-fields, and flowers in June.

C. Bauhine calls it *Scabiosa pratensis hirsuta quæ efficiarum*.

It is excellent against disorders of the breast given in infusion.

2. The Lesser Scabious.

Scabiosa minor.

The root is long, thick, and furnished with many fibres.

The stalk is round, upright, slender, and two feet high.

The leaves are all very deeply divided into segments, and are of a faint green.

The flowers are large, and naturally blue; but they are sometimes redish or white.

It is common in dry pastures, and flowers in July.

C. Bauhine calls it *Scabiosa capitulo globoso minor*.

3. Scabious, with bitten roots.

Scabiosa radice succisa.

The root is thick, short, and abruptly broken off, and has a multitude of thick fibres.

The leaves that first rise from it are oblong, of a deep green, not indented at the edges, and smooth.

The stalks are slender, upright, and a foot and half high.

The flowers are of a deep blue.

It is common in meadows, and flowers in August.

C. Bauhine calls it *Scabiosa succisa glabra et hirsuta*. Our people, *Blue devil's-bit*.

DIVISION II. FOREIGN SPECIES.

Musk-Scabious.

Scabiosa flore suave olente.

The root is formed of many fibres, connected to a small head.

The stalk is upright, of a pale green, round, very much branched, and a yard high.

The leaves are divided into very fine segments. The flowers are placed at the tops of the branches, and are of a deep purple, almost black; and they have a fine musky smell.

It is a native of Spain, and flowers in August.

C. Bauhine calls it *Scabiosa moschata*.

G E N U S XV.

TEASELL.

D I P S A C U S.

THE flower is composed of numerous floscules, arranged in an oval head, within a common cup. This is composed of a few narrow and sharp pointed leaves. Each floscule is tubular, and divided at the rim into four segments.

Linnaeus places this with the former among the *tetrandria*, separating them entirely from the rest of the corymbiferous tribe, which stand among his *Lyngenesia*.

1. Common Teasel.

Dipsacus vulgaris.

The root is long, thick, and has a few large fibres.

The stalk is round, whitish, thick, upright, and six feet high.

The leaves are long, and moderately broad; they stand in pairs, and unite at the base in such

a manner as to hold water: they are of a fine green, and their under rib is prickly.

The flowers are small, and of a pale red; and they stand in vast oval heads.

It is common by way-sides, and flowers in July.

C. Bauhine calls it *Dipsacus sylvestris fræ virga pastoris major*.

2. Small Teasel.

Dipsacus minor.

The root is oblong, small, and hung with many fibres.

The stalk is upright, very much branched, and a yard high.

The leaves are broad, and of a deep green: they stand in pairs, but their bases do not unite as in the other.

The flowers are whitish and sweet; and they stand in little round heads.

It is common by road-sides, and flowers in August.

C. Bauhine calls it *Dipsacus minor seu capitulo minore*.

The common teasell, cultivated in good ground, grows larger in all its parts, and the heads are used in dressing of cloth.

The END of the TWENTY-EIGHTH CLASS.



BRITISH HERBAL.

CLASS XXIX.

Plants whose flower is composed of six petals, or has six segments; whose seed-vessel is divided into three cells, containing each a double series of seeds; whose leaves are grassy, and whose root consists of a single, roundish lump, with fibres from the base.

THESE are a numerous and very beautiful series of plants; and all who have taken the plain road of Nature in forming systems of botany, have therefore kept them in one class, and separated all others from them. Ray calls them the bulbous rooted plants; this kind of root being universally understood by the term *bulb*; and the leaves from all of them are long, slender, and without footstalks, which is the sense of the term *grassy*.

Linnæus, as is his custom, takes the character of the classes in which these plants are arranged, from the number of filaments in the flower; and in this instance, as in every other, he separates those genera which Nature has allied into the most remote parts of his system; and joins with every division of them those which she separates most widely from them. Thus, in his method, the *colobium* and *crocus*, allied as closely as two distinct genera can be, are separated by three classes; the *crocus* being one of his third, because there are but three threads in the flower; and the *colobium* one of his sixth class, because there are in that six filaments.

Let the unprejudiced examine these two plants, and judge between us, whether Linnæus have done well in separating, or I in bringing them again together. The respect I have for this author, notwithstanding my dislike to his system, makes it disagreeable to me to accumulate censures upon him: but, in support of the exceptions made to his method in this respect, I must add, that, beside separating these plants from one another, he has joined in the same class with the *crocus* the *tamarind-tree*, and with the *colobium* and *tulip* he has placed the *asparagus* and *berberry-bush*.

SERIES I.

BRITISH GENERA.

Those of which one or more species are naturally wild in this country.

GENUS I.

GARLICK.

ALLIUM.

THE flower is composed of six petals, and the seed-vessel is very broad and short. A number of these flowers are contained in a common scabbard, which is roundish, and terminates in a single or double point. The seeds are numerous, and roundish.

Linnæus ranges this among the *hexandria monogynia*; the threads being six, and the style single.

The BRITISH HERBAL.

467

DIVISION I. BRITISH SPECIES.

1. Crow-Garlick. *scg. 1*

Allium sylvestre tenuifolium.

The root is small, roundish, covered with a red skin, and of a very strong taste.

The leaves are very long, slender, hollow, and of a pale green.

The stalk is round, upright, and a foot high.

The head is small, and is frequently composed altogether of little fleshy substances, which shoot out leaves in the manner of roots, and take root when they fall: sometimes there are among these small, greenish flowers.

It is common in pastures, and sometimes among corn. It flowers in June.

C. Bauhine calls it *Allium campestre juncifolium capitatum purpurascens majus*. Others, *Allium sylvestre juncifolium*.

We have it among corn in Essex. It flowers in July.

C. Bauhine calls it *Allium montanum bicornis flore exalbido*. Clusius, *Moly montanum tertium*; a name others have followed.

4. Purple Garlick.

Allium latifolium flore purpurascens.

The root is round, simple, and large.

The leaves are numerous, broad, and of a deep green.

The stalk is a foot and half high.

The flowers stand at its top in a great round cluster; and they are purple.

We have it in the western counties not uncommon. It flowers in June.

Ray calls it *Allium Holmense sphericum capite*.

5. Broad-leaved Wild Garlick.

Allium sylvestre latifolium album. scg. 2

The root is round and whitish.

The leaves are oblong, very broad, and of a fine deep green.

The stalk is of a pale green, three square, and ten inches high.

The flowers stand at the top in a cluster; and they are small and white.

It is common in damp ground, and flowers in April.

C. Bauhine calls it *Allium sylvestre latifolium*. Our people, *Ramsons*.

6. Great Mountain Garlick.

Allium montanum elatius.

The root is composed of several small pieces, covered with one common skin, which is tough and redish.

The leaves are broad, striated, and of a deep green.

The stalk is two feet and a half high, round, green, and juicy.

At its top stands a head, composed of fleshy tubercles, of a blackish purple, with a few pale purple flowers between them.

It is found in the north of England, flowering in April.

DIVISION II. FOREIGN SPECIES.

Common Garlick.

Allium hortenfe.

The root is composed of numerous small pieces, enclosed in one common skin.

The leaves are long and narrow, and of a pale green.

The stalk is round, upright, and smooth.

At the top stand a great number of flowers, collected into a round, clustered head: they are small and whitish.

It is a native of the East, but for its use is cultivated every where in gardens.

Some are fond of the root in food; and it is excellent in medicine.

A syrup of *garlick* is a great remedy in asthma. It is also aperient, and good in all obstructions of the viscera, and is recommended against contagious disorders.

GENUS

G E N U S II.

DAFFODILL.

N A R C I S S U S.

THE flower is formed of a long, tubular body, and six petals. This tubular part is by common writers called the cup of the flower, but is its nectarium; and the petals are oblong, and are inserted into it above the base. The seed vessel is roundish, but marked with three ridges; and the scabbard enclosing the flowers before they open, is oblong and flattened.

Linnaeus places this among the *hexandria monogynia*; the threads being six, and the style single in the flower.

DIVISION I. BRITISH SPECIES.

1. Wild English Daffodill.

Narcissus sylvestris pallidus. *Pl. 3*

The root is small, and roundish.

The leaves are narrow and long, and of a strong green.

The stalk is upright, and a foot high; and on its top stands a single flower. This is large and yellow: the edge of the nectarium or tubular part is waved, and the petals are paler than this part.

We have it frequent wild in the north of England in damp pastures, flowering in April.

C. Bauhine calls it *Narcissus sylvestris pallidus calyce luteo*. Others, *Pseudo-narcissus Anglicus*.

2. Pale Daffodill, called Primrose-Peeries.

Narcissus medio luteus vulgaris. *Pl. 4*

The root is small, and roundish.

The leaves are long, and somewhat broad, striated, and of a pale green.

The stalk is flattened, and a foot high.

The flowers are very beautiful.

The petals are large, and of an extreme pale yellowish, little more than we call cream-colour; and the nectarium is small and yellow.

We have it wild in the north of England, and it is frequent in gardens.

C. Bauhine calls it *Narcissus pallidus medio luteo*. Others, *Narcissus medio luteus*.

DIVISION II. FOREIGN SPECIES.

Rush-leaved Daffodill, called Junquille.

Narcissus juncifolius vulgaris. *Pl. 5*

The root is small, and roundish.

The leaves are long, slender, hollow, rounded, and of a deep green.

The stalk rises in the midst; and is slender, and a foot high.

The flowers are of a beautiful pale yellow, and very sweet.

It is a native of the East, but is kept every where in gardens, where culture raises many varieties of it.

C. Bauhine calls it *Narcissus juncifolius*; a name copied by others.

G E N U S III.

STAR OF BETHLEHEM.

ORNITHOGALUM.

THE flower is composed of six petals, which remain after they have lost their colour. They have no cup. The seed-vessel is roundish, but has three ridges; and there are a kind of films at the base of all the footstalks of the flowers.

Linnaeus places this, with many other of the bulbous plants, among the *hexandria monogynia*.

DIVISION I. BRITISH SPECIES.

1. Wild, spiked Star of Bethlehem.

Ornithogalum angustifolium spicatum flore ex albo virente. *Pl. 6*

The root is round, large, and white.

The leaves are long, narrow, and of a pale green.

The stalk is round, upright, and two feet high.

The flowers stand in a long spike at the top, and are of a greenish white.

It is found wild in our western counties, and flowers in April.

C. Bauhine calls it *Ornithogalum angustifolium majus*.

2. Common Star of Bethlehem.

Ornithogalum vulgare. *Pl. 7*

The root is large, round, and white.

The leaves are numerous, very narrow, long, and of a dark green.

The stalk is round, upright, and eight inches high.

The flowers grow in a kind of umbel, not a spike;

spike; and they are large and white, with a streak of green on the back of each petal.

We have it on damp places in hilly grounds, but not common. It flowers in April.

C. Bauhine calls it *Ornithogalum umbellatum medium*.

3. Yellow Star of Bethlehem.

Ornithogalum luteum. *Pl. 8*

The root is round and small.

The leaves are of a pale green, long, narrow, and grassy.

The stalk is about four inches high, round, and also of a pale green.

The flowers are of a beautiful yellow.

We have it wild in the northern counties. It flowers in April.

C. Bauhine calls it *Ornithogalum luteum*. Others, *Cepe agraria*.

DIVISION II. FOREIGN SPECIES.

Tall, spiked Star of Bethlehem.

Ornithogalum majus spicatum. *Pl. 9*

The root is large, round, and white.

The leaves are long, and have some breadth; but they are of the grassy form.

The stalk is upright, round, and a yard high.

The flowers are of a delicate white; and they

stand in a fine, long spike at the top of the stalk.

It is a native of Spain, and flowers in August.

C. Bauhine calls it *Ornithogalum spicatum majus*.

The virtues of these plants are unknown; but their beauty has given them a place in gardens.

G E N U S IV.

HYACINTH.

HYACINTHUS.

THE flower is formed of a single petal, tubular at the base, and divided into six segments at the edge; and there is within, a nectarium, formed of three distinguishable openings on the top of the rudiment of the fruit. There is no cup. The seed-vessel is roundish, but marked in three places.

Linnaeus places this among the *hexandria monogynia*.

DIVISION I. BRITISH SPECIES.

1. Small Vernal Star-Hyacinth.

Hyacinthus stellaris minor. *Pl. 10*

The root is round and small.

The leaves are long, grassy, and of a pale green. There generally rise only two or three with the stalk.

The stalk is round, slender, and six inches high.

The flowers stand in a short spike; and are deeply divided, and of a fine blue.

We have it in our northern counties. It flowers in April.

C. Bauhine calls it *Hyacinthus stellaris trifolius Germanicus*. Others, *Hyacinthus stellaris vernus*.

2. Common Blue Hyacinth.

Hyacinthus ceruleus vulgaris. *Pl. 11*

The root is round white.

The leaves are long, grassy, and of a pale green.

The flowers grow on the top of a thick, round, juicy stalk, which is a foot high, and bends at

the summit: they are long, tubular, and of a deep blue.

It is common under hedges, and flowers in April.

C. Bauhine calls it *Hyacinthus ceruleo flore oblongo major*. Others, *Hyacinthus vulgaris*, and *Hyacinthus Anglicus*.

3. Lesser Autumnal Star-Hyacinth.

Hyacinthus stellaris autumnalis minor. *Pl. 12*

The root is small and round.

The leaves are numerous, long, narrow, and of a faint green.

The stalk is slender, of a pale green, and six inches high.

The flowers stand in a spike at the top; and are small, deeply divided into pointed segments, and of a fine sky-blue.

We have it on heaths, but not common. It flowers in August.

C. Bauhine calls it *Hyacinthus stellaris autumnalis minor*; a name others have copied.

DIVISION II. FOREIGN SPECIES.

Blue Muscari. *167.13**Hyacinthus flore caeruleo globoso.*

The root is round and small.

The leaves are numerous, and of a pale green.

The stalk is round, upright, broad, and ten inches high.

The flowers stand drooping in a thick, short spike at the top; and they are globular, or nearly so, and blue.

It is a native of the East, and flowers in August.

C. Bauhine calls it *Muscari vulgare*.

GENUS V.

MEADOW-SAFFRON.

COLCHICUM.

THE flower is large, and rises immediately from the root. It consists of a long, tubular base, and a broad body, at the top divided into six segments, resembling so many large petals. There is no cup. The seed-vessel is divided into three parts, and the leaves appear at a different time from the flowers.

Linnaeus places this among the *hexandria trigynia*; the threads being six, and the styles three, and of equal length with them.

Meadow-Saffron.

Colchicum vulgare. 167.14

The root is large and round.

The leaves are numerous, long, and when fully expanded very broad: they naturally appear at a different time from the flower; and if any chance to rise with it, they are narrower.

The flower rises out of the ground without any stalk, its own tubular base serving to that purpose: it is very large, and of a pale, but elegant

purple. The segments are naturally six; but sometimes they are double that number in the wild plant; and sometimes, instead of an uniform purple, the flower is streaked with white, or is white throughout.

We have it in meadows in our southern counties. It flowers in September.

C. Bauhine calls it *Colchicum commune*.

The root is accounted poisonous.

SAFFRON.

CROCUS.

THE flower is formed of a single petal, tubular, and very long at the base, and divided into six segments at the edge, which seem so many distinct petals. The scabbard serving as a cup, is formed of a single piece. The seed-vessel is roundish, but marked with three ridges.

This plant, which is scarce to be distinguished as a genus from the preceding, Linnaeus places in a different class, the *triandria*, because the threads in the flower are only three.

True Saffron.

Crocus vernus autumnalis. 167.15

The root is roundish, and has many fibres at the bottom.

The leaves are very narrow and grassy, of a dark green, and are marked with a white rib along the middle.

The flowers are large, and of a fine blue purple, with orange-coloured tops to the styles.

It is found in some parts of the kingdom growing in fields under hedges, but probably has been owing to roots scattered from places where it was cultivated for sale.

It flowers in August.

C. Bauhine calls it *Crocus sativus*.

The part used in medicine rises from the top of the style, and is in its termination destined to receive the farina from the buttons of the threads, for impregnating the seeds. This consists of three orange-coloured, waved, flat filaments; which are separated from the rest of the flower, and dried with care.

The whole compafs of medicine does not afford a nobler cordial or sudorifick. It is excellent also in obstructions of the viscera, in powder or tincture.

GENUS

GENUS VII.

BULBOCODIUM.

THE flower is composed of six petals, and has no cup. The seed-vessel is marked with three ridges; and there are some rudiments of leaves upon the stalk. Linnaeus places this among the *hexandria*.

Alpine Bulbocodium.

Bulbocodium flore rubente. 167.16

The root is small and round.

The leaves are numerous, long, narrow, and of a pale green.

The stalk is four inches high, very slender, and has a few imperfect leaves.

One flower stands at the top; and this is small,

and of a pale red on the outside, but white within.

We have it on our northern mountains. It flowers in August.

Ray calls it *Bulbocodium Alpinum pumilium juncifolium flore unico extus rubente*.

Its virtues are unknown.

The END of the TWENTY-NINTH CLASS.



THE

BRITISH HERBAL.

CLASS XXX.

Plants whose flower is conspicuous, and of an irregular structure; whose leaves are grassy, and whose roots are not bulbous.

THESE are distinguished by Nature as perfectly as the preceding from all other plants. Their leaves have the aspect of those of the bulbous tribe; but their roots are either massy and irregular, or formed of double parts, or of implicated fibres, rising from a thick head. This distinction of Nature Ray and others have followed, calling them *herbæ bulbosæ affines*, and keeping them together in one class. But Linnæus has scattered them over different parts of his works, taking his characters not from these larger parts, but from the threads in the flower.

SERIES I.

BRITISH GENERA.

Those of which one or more species are found wild in this country.

GENUS I.

FLAG-FLOWER.

IRIS.

THE root is massy and irregular. The leaves are edged as swords. The flower is formed of one petal, divided into six parts: three of these stand outward, and turn back; and the other three are placed inward, and are erect. The seed-vessel is oblong, and angulated. Linnæus places this among the *triandria monogynia*, the filaments in the flower being three, and the style single.

DIVISION I. BRITISH SPECIES.

1. Common Flag-Flower.

Iris lutea vulgaris. *Dec.*

The root is brown, thick, and creeping. The leaves are very long, somewhat broad, of a pale green, edged on each side, and sharp-pointed.

The stalk is a yard high, of a pale green, and beset with a few shorter leaves.

The flowers are large and yellow.

It is common by water, and flowers in July.

C. Bauhine calls it *Acorus adulterinus*. Others, *Iris palustris lutea*.

The dried roots are diuretick, and good against obstructions of the viscera.

2. Whitish Flag-Flower.

Iris pallidior.

The root is thick, and spreads irregularly under the surface.

The

The BRITISH HERBAL.

473

The leaves are short, sharp-pointed, edged on both sides, and of a pale green, with a tinge of greyish.

The stalk is two feet high; and the flowers are large, and of a pale yellow.

We have it by waters. It flowers in June.

Ray calls it *Iris palustris pallida*.

3. Stinking Flag-flower, called Gladdon.

Iris fetida Xyris diffusa.

The root is thick, and spreads under the surface.

The leaves are numerous, long, edged, and pointed, and of a deep green.

The stalk is two feet high, and at the top stand several flowers: they are large, but of a greyish disagreeable colour.

The leaves, when bruised, have a strong, unpleasant smell.

It is common in damp places, and flowers in August.

C. Bauhine calls it *Gladiolus fetidus*. Others, *Xyris*, *Iris fetida*, and *Spatula fetida*. Our people, *Stinking Gladdon*.

DIVISION II. FOREIGN SPECIES.

Blue Flower-de-Luce.

Iris hortensis vulgaris.

The root is thick and spreading.

The leaves are long, broad, of a deep green, edged on both sides, and sharp-pointed.

The stalk is two feet and a half high, and at

its top stand several large flowers: these are of a very beautiful blue.

It is a native of the warmer parts of Europe, and flowers in August.

C. Bauhine calls it *Iris cœrulea vulgaris*.

The juice of the root expressed, with white wine, is a rough purge, but excellent in dropries.

GENUS II.

BASTARD-ASPHODELL.

PHALANGIUM.

THE root consists of numerous implicated fibres, rising from a short, thick head. The leaves are grassy. The flowers are formed each of a single petal, divided into six unequal starry segments. The seed-vessel is three-cornered.

Linnæus places this among the *hexandria*, the threads in the flower being six.

1. Lancashire Bastard Asphodell.

Phalangium iridis folio majus. *Dec.*

The root has many thick, brown fibres.

The leaves are long, of a bluish green, sharp-pointed, and edged on the two sides.

The stalk is upright, and two feet high.

The flowers grow at the top in a long, beautiful spike; and are small, and of a gold yellow.

It is found on bogs in some parts of England, but is not common. It flowers in August.

C. Bauhine calls it *Pseudo-asphodelus palustris Anglicus*. Others, *Asphodelus Lancastrie*.

2. Dwarf Bastard-Asphodell.

Phalangium minimum.

The root is composed of innumerable fibres, rising from a small, thick head.

The leaves are of a dusky green, long, narrow, and sharp at the point and edges.

The stalk is slender, and eight inches high.

The flowers stand at the top in a loose irregular spike; and they are small, and of a pale yellow.

It is found on bogs in Scotland, and the north of England. It flowers in July.

Ray calls it *Phalangium Scoticum palustre minimum iridis folio*.

GENUS III.

ORCHIS.

THE flowers are collected into a spike; and they have no cup. Each is composed of five petals, and furnished with a nectarium. Three of the petals stand outward, and the two others inward; and these two rising upwards, form a kind of hood. The nectarium is formed into two lips and a base, and is fixed to the receptacle: it has its place between the petals. The seed-vessel is oblong, and the seeds are minute. The leaves are oblong, and moderately broad.

We have many irregular names in English for the various species of this genus; but it is more advisable to retain the Latin name *orchis*, which is very familiar, to them all.

The roots afford no certain character: they are in most species double and roundish, but in some triple, in others handled, and in some only single.

It is a very extensive as well as singular genus; and, after the general characters here given, we hope to explain the differences of the species, without that tediousness and prolixity too general in the accounts of them in authors.

Linnæus ranges them among the *gynandria diandria*; the filaments being two, and these inserted N° 47.

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on the rudiment of the style. He divides them into two genera, under the names of *orchis* and *satyrium*; the principal difference of which is, that the hinder part of the nectarium is in the *orchis* pointed and long, and in the *satyrium* short and nipped. These characters are not enough to separate plants, so evidently connected by Nature to one another; and we have therefore joined them.

1. Great Goat Orchis.

Orchis barbata fetida. *HC. 60. 1*

The root is a double bulb, or is composed of two roundish parts of the bigness of walnuts.

The leaves are very large, broad, oblong, and of a deep green.

The stalk is a yard high, and has some leaves on it.

The spike of flowers is long and thick: they are placed on twisted bodies; and are of a whitish green, variegated with purple, and distinguished by long, greenish beards, formed of the lower lip of the nectarium.

The whole plant has a strong and disagreeable smell.

We have it in many parts of England in rich damp places. It flowers in August.

C. Bauhine calls it *Orchis barbata fetida*. Others, *Trago-orchis*.

2. Small Goat Orchis.

Orchis barbata minor.

The root is a double bulb.

The leaves are broad, obtuse, and of a deep green.

The stalk is thick, juicy, and a foot high.

The flowers are small and white, and have white beards.

It is found in our southern counties, and flowers in July.

Ray calls it *Orchis barbata fetida minor flore albo*.

3. Male Fool's Orchis.

Orchis morio mas. *HC. 60. 2*

The root is a double bulb.

The leaves are long, broad, of a deep green, and spotted with black.

The stalk is ten inches high.

The flowers are large, and of a fine purplish red, with a few deep purple spots: they stand in loose, short spikes at the tops of the stalks.

It is common in pastures, and flowers in June. C. Bauhine calls it *Orchis morio mas foliis maculatis*.

4. Female Fool's Orchis.

Orchis morio femina. *HC. 60. 3*

The root is a double bulb.

The leaves are long, and of a faint green; and the stalk is a foot high.

The flowers stand in a short, loose spike; and the body of them is purple; but the side segments are streaked with green.

It is common in pastures, and flowers in June. C. Bauhine calls it *Orchis morio femina*.

5. Little purple Orchis.

Orchis pumila floribus purpureis punctatis.

The root a small double bulb.

The leaves are long and obtuse.

The stalk is eight inches high; and the flowers, before they are opened, terminate it in a dusky cone. When opened, they are small, and stand thick in a short spike: their hood is purple, and their under-part whitish, but full of purple spots: We have it on dry, chalky hills, flowering in July.

C. Bauhine calls it *Cynorchis militaris pratensis humilior*.

6. Purple Sweet Orchis.

Orchis purpurea odorata.

The root is a double bulb.

The leaves are very broad, oblong, and of a deep green.

The stalk is a foot and half high.

The flowers stand at the top in a long spike; and they are of a deep fine purple, and have a light fragrance.

We have it in rich meadows, flowering in June.

C. Bauhine calls it *Orchis obscure purpurea odorata*.

7. Purple Late Orchis.

Orchis purpurea spica congesta pyramidalis.

The root is a double bulb.

The leaves are oblong, moderately broad, and of a deep green.

The stalk is two feet high.

The flowers stand at the top in a thick, short spike; and are of a pale redish colour, without any spots: they have long and slender spurs.

It is found in dry pastures, and flowers in the beginning of July.

C. Bauhine calls it *Cynorchis militaris spica rubente conglomerata*.

8. Yellow Musk-Orchis.

Orchis odorata radice simpliciter.

The root is a single tuberous lump.

The leaves are oblong, broad, and of a pale green.

The stalk is slender, and eight inches high.

The flowers stand in a long, slender, loose spike; and they are small, and of a greenish yellow: they have a light fragrance.

It is found in dry pastures, and flowers in autumn.

C. Bauhine calls it *Orchis odorata moschata seu mono-orchis*; a name others have copied.

9. Lady Trace Orchis.

Orchis spiralis alba. *HC. 60. 4*

The root is a triple bulb.

The leaves are short, broad, pointed at the end, and of a pale green.

The stalk is round, and of a whitish green, and six inches high.

The flowers are small and whitish; and they stand in a twisted or spiral series at the top of the stalk.

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We have it in dry pastures, but not common. It flowers in August.

C. Bauhine calls it *Triorchis alba odorata*. Our people, *Ladies orchis*, and *Ladies traces*.

Authors speak of a lesser kind, but it is only a variety; and of a small *bulbous orchis*, which is in the same manner a variety of the preceding.

10. Common Man-Orchis.

Orchis floribus subcinereis. *HC. 60. 5*

The root is a double bulb.

The leaves are numerous, broad, oblong, and of a deep green.

The stalk is round, and of a pale green, and is a foot high.

The flowers are outwardly of a dusky greyish colour; and are of a paler hue, and tinged more or less with red within. Fancy has supposed the representation of a human body, arms, and legs, in this flower; whence it has obtained the name *man-orchis*; but the resemblance is far-fetched.

C. Bauhine calls it *Cyno-orchis latifolia bicante cucullis major*.

We have it in dry pastures, flowering in June.

11. Blackish-flowered Man-Orchis.

Orchis flore majore purpureo nigricante.

The root is a double bulb.

The leaves are oblong, broad, and of a strong green.

The stalk is a foot and half high.

The flowers are large; and they stand in a great, thick spike at the top.

The upper part of the flower is of a blackish purple: the lower part is supposed to have a representation of a human body, with the arms and legs; and this part is whitish, and covered with reddish or purplish hairs.

We have it on chalky hills. It flowers in June.

J. Bauhine calls it *Orchis magna latifolia*.

12. Greenish Man-Orchis.

Orchis flore subviridi. *HC. 60. 11*

The root is a double bulb.

The leaves are numerous, broad, and of a deep green.

The stalk is a foot and half high.

The flowers terminate it in a long, loose slender spike: they have the same resemblance of the human form with the preceding; and they are of a greenish colour, tinged in some parts with brown.

We have it on chalky hills, flowering in June. C. Bauhine calls it *Orchis flore nudi hominis formam representante femina*. Others, *Orchis Orades femina*.

13. The Fly-Orchis.

Orchis myodes minor. *HC. 60. 12*

The root is a double bulb.

The leaves are oblong, broad, and of a dusky green.

The stalk is round, slender, upright, and a foot high.

The flowers stand at the top in a loose spike: they are of a very singular form, representing not unaptly the head, body, and wings, of a fly. The upper part of the flower is greenish; the lower part representing the body is of a deep dusky brown.

We have it on chalk-hills. It flowers in May.

C. Bauhine calls it *Orchis myodes galea et alis herbidis*. Others, *Myodes minor*.

14. The Greater Fly-Orchis.

Orchis myodes major. *HC. 60. 13*

The root is a double bulb.

The leaves are broad, short, and of a deep green.

The stalk is two feet high, and considerably thick.

The flowers stand on the top in a loose spike: they are large, and of a dusky colour, paler at the top: they represent very aptly so many large flies.

We have it in dry pastures, but not common. It flowers in June.

C. Bauhine calls it *Orchis muscam referens major*.

15. The Great Bee-Orchis.

Orchis fuciflora major. *HC. 60. 14*

The root is a double bulb.

The leaves are oblong, broad, and of a deep green.

The stalk is a foot high; and the flowers stand at the top in a kind of loose spike.

They are large, and in the highest degree singular and beautiful: they so perfectly represent the smaller kind of humble bee, that one might strike at them, supposing them bees sitting on the plant. The upper part, representing the head, is whitish; the side-pieces, representing wings, are purplish; and the body is brown, variegated in an elegant manner with lines and streaks of yellow.

The colours are in different soils somewhat uncertain, but the form is constant.

We have it in chalk-pits. It flowers in June.

C. Bauhine calls it *Orchis fucum referens major foliolis superioribus candidis et purpurascensibus*.

16. The Bee-Orchis, with green wings.

Orchis fuciflora ferruginea. *HC. 60. 15*

The root is a double bulb.

The leaves are oblong, and of a deep green.

The stalk is a foot high, and at its top the flowers stand in a loose spike. They very happily represent the common bee: they are hairy, and of a dusky, variegated brown in the body or lower part; and the upper parts, forming the head and wings, are of a pale, greenish hue, sometimes tinged lightly with flesh-colour or white.

We have it in dry pastures, flowering in the beginning of May.

C. Bauhine calls it *Orchis fucum referens colore rubiginoso*.

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17. The Butterfly-Orchis.

Orchis bifolia calcaris oblonga. *HC60.16*

The root is a double bulb.

The leaves are usually two: they are oblong, very broad, and of a deep green.

The stalk is a foot high, slender, and of a pale green.

The flowers stand at the top in a long, loose spike; and they are small and white.

They are supposed to represent the form of a butterfly; but there must go a great deal of fancy to make that out. The spur behind is very long, and there is a pleasing sweetness in the flowers at evening.

We have it in boggy grounds. It flowers in May.

C. Bauhine calls it *Orchis bifolia altera*. Others, *Orchis hermaphrodita*, and *Psychodes*.

18. Gnat Orchis.

Orchis bifolia minor. *HC60.17*

The root is a double bulb.

The leaves are oblong, broad, obtuse, and usually only two in number.

The stalk is of a pale green, juicy, and six inches high.

The flowers stand in loose spikes at the tops of the stalks; and are small, white, and of little smell: they have been supposed by some to represent a gnat; but it is very imperfectly.

C. Bauhine calls it *Orchis bifolia minor calcaris oblonga*.

19. Male Handed Orchis.

Orchis palmata mas. *HC60.109*

The root is composed of two tuberous pieces, divided at the bottom in the manner of fingers. This is what botanists call palmated.

The leaves are numerous, broad, of a pale green, and obtuse.

The stalk rises to two feet in height.

The flowers stand in a long spike at the top; and are naturally of a fine red, with a tinge of purple.

They are sometimes white, and the spike shorter.

These and the like differences rising from the degree of nourishment, have led writers to distinguish it into several imaginary species.

We have it frequent in boggy and wet ground. It flowers in June.

C. Bauhine calls it *Orchis palmata pratensis latifolia cum longis calcaribus*.

20. Female Handed Orchis.

Orchis palmata femina. *HC60.119*

The root is handed.

The leaves are long, broad, of a deep green, and spotted with black.

The stalk is a foot and half high, and at the top stand the flowers in a long close spike: they are small, and of a pale red, with a tinge of purple.

It is common in pastures, and flowers in June.

C. Bauhine calls it *Orchis pratensis maculata*. Others, *Orchis palmata maculata*.

21. Long spurred handed Orchis.

Orchis palmata calcaribus longis. *HC60.20*

The root is palmated.

The leaves are oblong, narrow, and of a pale green.

The stalk is ten inches high, and juicy.

The flowers stand at the top in a long, thick-set spike; and they are small, and naturally of a very bright red, sometimes white: they have a fragrant smell.

It is not uncommon in our pastures, and flowers in June.

C. Bauhine calls it *Orchis palmata minor calcaribus oblongis*.

22. Frog-Orchis.

Orchis palmata flore luteo viridi.

The root is palmated.

The leaves are oblong, broad, and of a deep green.

The stalk is a foot and half high.

The flowers stand at the top in a loose spike; and they are large, and of a singular figure, by some supposed to represent a frog.

Their colour is a yellowish green; and the lower part is sometimes tinged with purple.

C. Bauhine calls it *Orchis palmata flore viridi*.

23. Dwarf handed Orchis.

Orchis palmata pusilla alba.

The root is palmated.

The leaves are oblong, broad, of a deep green, and obtuse.

The stalk is five inches high, and at its top stand the flowers in a loose, small spike: they are white, and, for the size of the plant, large.

We have it on our western hills. It flowers in June.

The flowers have a sweet smell.

Ray calls it *Orchis pusilla alba odorata radice palmata*.

24. Great-handed Orchis, with greenish, white flowers.

Orchis palmata major flore viridi albente.

The root is palmated.

The leaves are broad, and of a deep green.

The stalk is two feet high.

The flowers stand at its top in a long, thick spike; and are large, and of a whitish green.

We have it in damp ground in our northern counties. It flowers in June.

Ray calls it *Orchis palmata thyrsos speciosa*.

25. Scarlet Orchis.

Orchis palmata tota rubra.

The root is palmated.

The leaves are oblong, considerably broad, and obtuse: they rise first of a brownish green, and soon after become of a fine red.

The stalk is round, juicy, red, and a foot high.

The flowers are small, numerous, and of a faint purple.

The whole plant, when it has been some time in flower, acquires the high red colour of the leaves.

We have it in Essex. It flowers in June.

C. Bauhine

C. Bauhine calls it *Orchis palmata palustris tota rubra*.

All these orchis's possess the same virtues: they are strengthening, restorative, and, as is said, promote venereal desires. Salep is the dried root of one of the species; and they all possess the same qualities. The testiculated kinds have it in the greatest degree.

26. Single-rooted Dwarf Bastard Orchis.

Orchis pumila bifolia radice singulari.

The root is a single, round lump, of a brownish colour.

The leaves are usually only two; and they are large, broad, waved along the edges, and of a deep green.

The stalk is not more than five inches high, and is of a pale green.

The flowers are clustered at the top; and they are small, and of a faint red.

We have it in boggy places in Suffex. It flowers in July.

C. Bauhine calls it *Chama-orchis liliifolia*. Others, *Pseudo-orchis*.

27. Mis-shapen Orchis, called Birds-nest.

Orchis abortiva rufa. *HC60.22*

The root is composed of very numerous, thick

fibres, irregularly interwoven with one another, so as to represent a bird's nest.

The leaves are oblong, considerably broad, and of a brownish green.

The stalk is a foot high, and of a brownish colour.

The flowers are moderately large, and of a dusky purple; and they are placed in a loose spike at the top of the stalk.

When the plant has been some time in flower, it becomes throughout of a dusky, purplish, brown colour.

We have it in Charleton forest, Suffex. It flowers in July.

C. Bauhine calls it *Orchis abortiva fusca*. Others, *Nidus avis*. Whence our English name, *Birds-nest*.

28. Smaller purple mis-shapen Orchis.

Orchis abortiva minor purpurea.

The root is composed of numerous, redist fibres, strangely interwoven with one another.

The leaves are small, and of a purplish green.

The stalk is ten inches high, and is purple.

The flowers stand in a spike at the top; and they are small, and of a lively crimson.

We have it in Suffex under old hedges. It flowers in June.

C. Bauhine calls it *Orchis abortiva violacea*, the whole plant being of a purple tinge.

GENUS IV.

HELLEBORINE.

THE flower is placed upon the rudiment of the seed-vessel, without any cup, and is composed of five petals; and there is placed within a nectarium, of an oval form, hollowed at the base, and divided at the top into three parts; the middle one of which is heart-fashioned. The leaves are broad and nervous, and the root is composed of interwoven fibres.

Linnaeus places this among the *gynandria diandria*; the filaments being two, and inserted on the pistil. He takes away the received name, and calls it *serapias*.

1. Common Helleborine.

Helleborine latifolia vulgaris. *HC60.1*

The root is fibrous and white.

The stalk is round, firm, upright, not at all branched, and two feet high.

The leaves are oblong, broad, of a deep green, and marked lengthway with numerous, high, and thick ribs.

The flowers grow in a kind of spike at the top; and are small, and of a greenish colour on the outside, whitish within, and sometimes tinged with purple.

The seed-vessel is oblong, and the seeds are small.

We have it in woods. It flowers in August.

C. Bauhine calls it *Helleborine latifolia montana*.

2. Purple broad-leaved Helleborine.

Helleborine latifolia flore purpureo. *HC60.2*

The root is fibrous and brown.

The stalk is firm, round, two feet high, and not branched.

The leaves are oblong, broad, and of a deep green; and they stand very frequent on the stalks.

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The flowers grow in a long, loose spike at the top; and they are throughout of a deep, dusky purple.

We have it in woods, but not common. It flowers in August.

C. Bauhine calls it *Helleborine altera atro ruente flore*.

3. Small, broad-leaved, white-flowered Helleborine.

Helleborine minor latifolia flore albo.

The root is fibrous and white.

The stalk is a foot high, and not at all branched.

The leaves are broad, short, of a pale green, and highly ribbed.

The flowers stand in a small spike at the top, and are white.

We have it in woods. It flowers in August.

C. Bauhine calls it *Helleborine flore albo*. Others, *Helleborine minor*.The flowers in this species sometimes are larger, and keep always shut; and in this state it has been described as a distinct species, under the name of *Helleborine latifolia flore albo clausa*; but it is only a variety.

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4. Helleborine,

4. Helleborine, with long, sharp-pointed leaves.
Helleborine foliis prolongis angustis acutis.

The root is composed of numerous fibres.
The stalk is two feet high, and not branched.
The leaves are long and narrow, sharp-pointed, and of a dead green.
The flowers stand in a loose spike at the top of the stalk; and are large, of a longish shape, white, and tinged on the outside with green.
We have it in thickets on damp soils. It flowers in August.

Ray calls it *Helleborine foliis prolongis angustis acutis.*

5. Marsh-Helleborine.

Helleborine palustris.

The root is composed of numerous fibres.
The stalk is a foot and half high, round, upright, and not branched.
The leaves are broad, and full of thick ribs.
The flowers hang from the top of the stalk in

a loose spike; and they are purplish on the outside, and white within.

We have it in boggy grounds, but not common.

C. Bauhine calls it *Helleborine angustifolia palustris*; but the leaves are not remarkably narrow.

6. Purple, narrow-leaved Helleborine.

Helleborine angustifolia flore purpurea.

The root is composed of numerous fibres.
The stalk is round, upright, and of a pale green.

The flowers stand at the top in a thin spike, and droop a little: they are large and purple.

We have it in woods in our northern counties. It flowers in August.

C. Bauhine calls it *Helleborine montana angustifolia purpurea*.

The roots of all these kinds are powerfully emetick, possessing the qualities of *white hellebore*.

G E N U S V.

LADY'S SLIPPER.

C A L C E O L U S.

THE flower is placed upon the rudiment of the seed-vessel, and has no cup. It consists of five petals when complete; but one is not unfrequently wanting; and in the midst of these is placed a large, hollow nectarium, supposed to resemble a slipper. This has at the top a little crooked lip. The leaves are broad and nervous, and the root is fibrous.

Linnaeus places this among the *gynandria diandria*, two threads growing on the pistil.

Lady's Slipper.

Calceolus Mariae. *Calceolus*

The root is composed of numerous implicated fibres.

The stalk is round, upright, not at all branched, and of a pale green.

The leaves are oblong, and of a yellowish

green, obtuse, and marked with very high ribs.

The flower stands at the top; and is very large, and of a beautiful yellow.

We have it in woods in our northern counties, but not common. It flowers in August.

C. Bauhine calls it *Helleborine flore rotundo, fœc Calceolus*.

G E N U S VI.

T W Y B L A D E.

O P H R I S.

THE flower is supported upon the rudiment of the fruit, and has no cup. It is composed of five petals, two of which are placed outward, the rest upward; and in the centre of these stands a nectarium, which hangs down, and is toothed. The leaves are naturally only two; and the root is fibrous.

Linnaeus ranges this with the preceding.

1. Common Twyblade.

Ophris vulgaris. *Ophris*

The root is composed of numerous fibres, variously interwoven.

The stalk is round, juicy, and ten inches high.

The leaves are naturally no more than two:

they are broad, short, and placed opposite to each other at some distance above the ground.

The flowers stand in a long spike at the top, and are of a pale greenish colour.

It is common on marshy ground, and flowers in June.

C. Bauhine calls it *Ophris bifolia*. Others, *Bifolium*.

2. Dwarf

2. Dwarf Twyblade.

Ophris minima foliis cordatis.

The root is composed of numerous implicated fibres.

The stalk is juicy, round, redish, and five inches high.

The leaves are only two; they are broad at the base, and somewhat indented, sharp at the point, and placed opposite.

The flowers are small and whitish.

We have it on bogs. It flowers in May.

C. Bauhine calls it *Ophris minima*.

3. Short-spiked Twyblade.

Ophris spica brevi.

The root is formed of implicated fibres, and sends out runners under the surface.

The stalk is round, and eight inches high.

The leaves are broad, and of a fine glossy green; and they rise two, or three sometimes, from one part of the stalk a little above the ground.

The flowers are small and whitish; and they form a short spike.

It is found on boggy ground, flowering in May.

Ray calls it *Bifolium palustre*.

The virtues of these plants are not known.

The END of the THIRTIETH CLASS.



T H E

THE BRITISH HERBAL.

CLASS XXXI.

Plants whose flower is composed of a cup and filaments, without any petals.

THIS is a very large class; and there is not in the whole compass of the science one better marked, or more obviously distinguished, to the unprejudiced eye; the want of petals, the gaudy part of a flower, rendering these altogether unlike all the others.

Ray has placed them together under the term *apetalous*; and others, who have followed Nature, have feared to separate them. But, in the modern system of Linnæus, they are, like the rest of Nature's alliances, scattered over all his works, the *docks* being placed among his *triandria*, and the *atriplex* among the *polygamia monœcia* at the other end of his work. These are the errors against which I declare, resting the objection upon Nature; against whom there is no appeal.

SERIES I.

Natives of BRITAIN.

Those of which one or more species are naturally wild in this country.

GENUS I.

APONOGETON.

THE flowers are of two kinds, male and female, on the same plant. The male flower consists of a single filament, terminated by an oval button, not having so much as a cup. The female flower has a cup, formed of one leaf, and dented in two places at the edge; in which are placed several rudiments of seeds, crowned with simple styles; and both kinds are situated in the bosoms of the leaves.

Linnæus places this among the *monœcia monandria*, and gives it the name *Zannicbælia*.

Horned Aponogeton.

Aponogeton cornutum. *Plag. 5*

The root is fibrous, and white.

The stalk is round, green, weak, and very much branched.

The leaves are oblong, narrow, numerous, and of a fresh green.

3

The flowers are small, and greenish; and they stand in the bosoms of the leaves over the greatest part of the plant.

It is common in waters, and flowers in July.

Pantederæ calls it *Aponogeton aquaticum graminifolium flaminibus singularibus*.

GENUS

GENUS II.

LIMNOPEUCE.

THE flowers are of two kinds, male and female, on the same plant. The male flower consists of a cup, divided into several minute pointed segments, and a great number of buttons, supported on very short filaments. The female flower has the same kind of cup with the male, and in it only a rudiment of the future seed.

Linnæus places this among the *monœcia polyandria*; the filaments being numerous, and the two kinds of flowers on the same plant.

1. Simple-leaved Limnopeuce.

Limnopeuce foliis simplicibus. *Plag. 6*

The root consists of numerous fibres.

The first shoots from it lie upon the mud, and send out more fibres at their joints.

The stalks are numerous, round, hollow, and of a faint green.

The leaves encircle them at the joints; and are numerous, simple, narrow, and also of a pale green.

The flowers are numerous and greenish: they stand partly at the tops of the stalks, and partly in the bosoms of the leaves.

It is common in muddy waters, flowering in August.

Cordus calls it *Limnopeuce*. Others, *Limnopeuce vulgaris*.

2. Four-horned Limnopeuce.

Limnopeuce foliis quadricornis.

The root is fibrous.

The stalks are weak and slender, loaded with leaves, and not very erect.

The leaves are placed in clusters; and are narrow, and armed with four horns. Their colour is a brownish green.

It is frequent in brooks, and produces its inconsiderable flowers in July.

Ray calls it *Hydroceratophyllum folio aspero quatuor cornibus armato*. Others, *Millefolium equisetifolium*.

3. Eight-horned Limnopeuce.

Limnopeuce octo cornibus armata.

The root is fibrous.

The stalk is weak, and of a brownish green.

The leaves are soft to the touch; whereas those of the other are harsh, and are armed with eight horns.

The flowers are very small, and greenish.

We have it in ponds and rivers, flowering in autumn.

Ray calls it *Hydroceratophyllum leve octo cornibus armato*.

The virtues of these plants are altogether unknown.

GENUS III.

PEPPER-GRASS.

PILULARIA.

THE flowers are of two kinds, male and female, upon the same plants. The male flower has no cup or petals; but consists of four long, twisted antheræ, fixed to one common substance; and these grow upon the leaves without footstalks. The female flower consists of a rudiment of a fruit; which is roundish, and afterwards enlarges in size, and when ripe is filled with numerous seeds in four cells.

Linnæus places this among the *cryptogamia*.

Pepper-Grass.

Pilularia vulgaris. *Plag. 7*

The root is small, fibrous, and white.

The leaves are numerous, long, very slender, and of a fine green.

The flowers are minute and greenish; and the seed-vessels, when ripe, are brown.

It is not uncommon in damp places, but is unobserved from its likeness to grass.

Ray calls it *Graminisfolia palustris repens vasculis granorum peperis æmulis*. Others, *Gramen peperinum*.

GENUS IV.

SEA-PONDWEED.

POTAMOGETON MARITIMUM.

THE flowers are male and female upon the same plant. The male flowers consist of single buttons, on very short filaments, arranged together on a pedicle, rising from the bosom of a leaf, and having no cup. The female flower has no cup. It consists only of a rudiment of a seed, supported singly on a slender footstalk: several of these footstalks rise from one common head; and the seed, when ripened, is oblong. Of this genus there is but one known species.

Nº XLVIII.

6 G

Grassly

Grassy Sea-Pondweed.

Potamogeton maritimum foliis gramineis.

The root consists of a few small fibres.

The stalks are numerous, slender, and branched, and three or four inches in length.

The leaves are narrow, grassy, numerous, and of a faint green.

The male flowers rise in catkins from the bosoms of the leaves; and are of a brownish colour. The female flowers stand in a kind of umbells, and are greenish.

We have it in the ditches of salt-marshes, flowering in August.

Ray calls it *Potamogeton maritimum graminis longioribus foliis, fructu fere umbellato.*

GENUS V.

GLASSWORT.

SALICORNIA.

THE flower is composed of a square cup, and a single filament, with a simple style rising from the rudiment of the seed. This is its whole construction. The seed afterwards ripens, and the cup swells and encloses it.

Linnaeus places this among the *monandria*, his first class; separating it far from all the other apetalous plants.

1. Jointed Glasswort.

Salicornia geniculata. Pl. 69. 01

The root is small and fibrous.

The plant is of a most singular structure, resembling some of the submarine more than the terrestrial kinds.

The stalk is composed of short, thick joints; and is five inches high, and very much branched. The branches divide again, and are jointed more conspicuously than the main stalk; and on these stand the flowers, which are small and whitish. The whole plant is naturally of a fresh green, but often red at the lower part, and sometimes throughout.

It is common in our salt marshes, and flowers in June.

C. Bauhine calls it *Kali geniculatum*. Others, *Salicornia*.

The plant is distinguished from all the others by the succulency of its branches, and its want of

leaves; but there have been three or four varieties of it, solely owing to the manner of growth, described by frivolous writers, as distinct species, under the names of *myosuroides*, *ramosior*, and *erecta*. One there is truly distinct, which follows.

2. Shrubby Glasswort.

Salicornia frutesca.

The root is fibrous.

The stem is hard, woody, and brown.

The branches are numerous and tender, and they are naturally redish.

The flowers are small, and redish.

We have it on our sea-coasts, flowering in June.

Ray calls it *Kali frutescens perenne procumbens*.

The tender branches of the preceding kind are pickled for sampire; but it is a fraud; and they are much inferior.

GENUS VI.

HOP.

LUPULUS.

THE flowers are of two kinds, male and female, and are produced on separate plants of the same species. The male flower is composed of five filaments, placed in a five-leaved cup. The female is formed of a large, oval cup, flattened on one side, made of a single leaf, and containing within it a single rudiment of a fruit, with two styles.

Linnaeus places this among the *diœcia hexandria*.

The Common Hop.

Lupulus vulgaris. Pl. 69. 09

The root consists of numerous, thick fibres, and sends out spreading shoots.

The stalks are tough, slender, striated, and, when supported, rise to twenty feet.

The leaves are large, broad, of a coarse green, and beautifully divided, with the segments serrated.

The male flowers hang from some of the plants in brown series. The female, collected into heads, ripen upon others; and these are used in brewing.

The plant is wild in our hedges, and cultivated in grounds for the service of the brewery. Its young tops are also eatable as asparagus, and as pleasant.

C. Bauhine calls it *Lupulus mas et femina*.

GENUS

GENUS VII.

HEMP.

CANNABIS.

THE flowers are male and female upon separate plants. The male consists of five small filaments, placed in a cup, divided into five segments. The female have two styles, placed on the rudiment of the seed in a cup that bursts sideways. The seed is enclosed, as it ripens, in this cup. Linnaeus places this among the *diœcia pentandria*.

The Common Hemp.

Cannabis vulgaris. Pl. 69. 10

The root consists of many fibres, connected to an oblong head.

The stalk is thick, tough, striated, and four feet high.

The leaves are large, and divided in the manner of fingers, and of a dusky green.

The flowers on the male plants are whitish,

those on the female of a pale green: these last only ripen seed.

It is wild in Scotland, but small. We cultivate it here in fields for the service of the linnen manufactory. It flowers in July.

C. Bauhine calls it *Cannabis mas et femina*.

An emulsion of hemp-seed has singly cured jaundice.

GENUS VIII.

DOGS MERCURY.

CYNOCRAMBE.

THE flowers are of two kinds, male and female, on the same plant. The male consist of numerous filaments, in a cup which splits into two parts, and those turn back. In the female the cup is of like form; but in it is only a single style, fixed to the rudiment of a fruit, which, when ripe, is rough, and holds a single seed.

Dogs Mercury.

Cynocrambe vulgaris. Pl. 69. 11

The root is fibrous, white, and spreading.

The stalk is green, round, juicy, and a foot high.

The leaves are placed in pairs; and they are green, fresh, oblong, serrated, and pointed.

The male flowers grow at the tops of the stalks in small, greenish spikes.

The seeds rise on small footstalks in the bosom of the leaves; and are of a testiculated form.

It is common under hedges, and flowers in April.

C. Bauhine calls it *Mercurialis montana testiculata*. Others, *Cynocrambe*.

The plant is poisonous, and has destroyed many persons.

GENUS IX.

FRENCH MERCURY.

MERCURIALIS.

THE flowers are male and female, and they grow on separate plants. The male flower consists of nine filaments, placed in a small cup, cut into three segments. The female is composed of a like cup, in which are placed two styles upon a rounded germen, and two nectaria at its sides. The seed-vessel is testiculated.

Linnaeus justly separates this from the former. Ray inadvertently joins them as species of one genus.

French Mercury.

Mercurialis annua glabra. Pl. 69. 12

The root is fibrous.

The stalk is a foot high, very much branched, and thick set with leaves: these are oblong, serrated, and of a beautiful green.

The male flowers are greenish, and grow in slender spikes on some plants. The female rise from the bosoms of the leaves in others; and are also little and greenish.

It is common about hedges, and flowers in May.

C. Bauhine calls it *Mercurialis mas et femina*.

GENUS

G E N U S X.

N E T T L E.

U R T I C A.

THE flowers are male and female on the same plant. The male flower consists of a four-leaved cup, and four filaments; with an oval, small nectarium. In the female there is only a rudiment of the seed, with a rough top, in a cup, split into two parts.

Linnaeus places this among the *monœcia tetrandria*.

1. Common Nettle.

Urtica vulgaris. *MC9.13*

The root is creeping.

The stalk is ridged, a yard high, branched, and beset with little prickles, at whose base are bladders of a sharp, watery juice, which inflames the skin, when let in by the puncture of the prickles.

The leaves are large, broad, oblong, sharp-pointed, serrated, and covered with the same prickles.

The flowers are greenish, and inconsiderable. It is common by way-sides, and flowers in July.

The male and female flowers in this genus, I have observed, are sometimes on the same, and sometimes on distinct plants.

2. The Lesser Nettle.

Urtica minor.

The root is fibrous.

The stalk is a foot high, not often branched, of a dusky green, and full of spines.

The leaves are broad, short, and serrated.

The flowers are greenish.

It is common about gardens, and flowers in June.

C. Bauhine calls this *Urtica urens minor*; the former, *Urtica urens maxima*.

3. Roman Nettle.

Urtica pilulifera. *MC9.14*

The root is fibrous, and creeps.

The stalk is ridged, two feet high, and branched.

The leaves are large, oblong, serrated, covered with poisoned spines, and of a deep green.

The male flowers are greenish, and inconsiderable: the female are succeeded by round, large balls, covered with spines, and containing the seeds.

It is wild in our northern counties, flowering in July.

C. Bauhine calls it *Urtica urens pilas ferens*.

The tops of the common nettle, eaten in spring, are deobstruent. The roots are a powerful and excellent diuretick.

G E N U S XI.

X A N T H I U M.

THE flowers are male and female on the same plant. The male flowers are clustered together, many in one cover, and consist each of five filaments, placed in a tubular cup, divided at the edge into five segments. The female flowers are contained two only in one cup, which is formed of two leaves, each divided into three lobes; the middle one largest, and covered with hooked spines. The fruit succeeding these is also oblong, and covered with hooked thorns.

Linnaeus places this among the *monœcia pentandria*.

Xanthium, called Small Burdock.

Xanthium vulgare. *MC9.15*

The root consists of an oblong head, and many fibres.

The stalk is striated, purplish, branched, and tough.

The leaves are large, and of a pale green, of

an oval and somewhat cordated form, and serrated.

The flowers are small and whitish; the fruit is hard, echinated, and of a purplish brown.

It grows on the edges of our fen-counties, and flowers in April.

C. Bauhine calls it *Lappa minor* *Xanthium Discoïdis*.

G E N U S XII.

D O C K.

L A P A T H U M.

THE flower consists of six very small filaments, with three styles, placed in a cup composed of six leaves, three outward, and three inward, all remaining with the seed; which is single, and three-cornered.

Linnaeus places this among the *hexandria trigynia*, and supposes the three inner segments of the cup, petals.

DIVISION I. BRITISH SPECIES.

1. Great Water-Dock.

Lapathum aquaticum maximum. *MC9.16*

The root is long, thick, and brown.

The stalk is thick, purplish at the bottom, green upwards, rarely much branched, and five feet high.

The leaves are long, and extremely large, of a fine green, and waved at the edges.

The flowers are greenish, and the seeds large and brown.

It is common about waters, and flowers in July.

C. Bauhine calls it *Lapathum aquaticum folio cubitali*.

It is celebrated against the scurvy.

2. Sharp-pointed Dock.

Lapathum folio acuto. *MC9.17*

The root is long, thick, brown on the outside, yellow within, and of a raw, austere taste.

The stalk is round, firm, branched, and three feet high.

The leaves are long, large, even at the edges, and sharp-pointed.

The flowers are greenish.

It is common in rich soils, and flowers in July.

C. Bauhine calls it *Lapathum folio acuto plano*. The root is excellent against the scurvy, much preferable to the great water-dock: it is best taken in a strong infusion.

Beside these, our waste grounds afford not less than nine other species of the common dock, not

including the sorrels, which are distinguished by their peculiar manner of growing.

In all these kinds the flowers, seeds, and manner of growth, are the same; their principal difference consisting in the form of their leaves. We shall therefore lay them before the reader in one view, without the interruption of divisions, into separate articles. They are,

1. The common Dock, *Lapathum vulgare obtusum*. Distinguished by the bluntness of its leaves.
2. The curled-leaved, sharp pointed Dock, *Lapathum acutum crispum*. Common by waters.
3. The smooth, narrow-leaved, sharp-pointed Dock, *Lapathum acutum angustifolium non crispum*.
4. Dwarf, sharp-pointed Dock, *Lapathum acutum minimum*. Whose flowers stand in thick tufts.
5. Green Dock, *Lapathum acutum viride*. In this there are no leaves among the clusters of flowers.
6. Fiddle-Dock, *Lapathum pulchrum Bononiense sinuatum*. Whose leaves are hollowed out on each side.
7. Golden Dock, *Lapathum angustifolium flore aureo*. Whose leaves are whitish, and the seed small.
8. Taller golden Dock, *Lapathum aureum angusto folio*. Whose leaves are very narrow, and seeds large.
9. Bloody Dock, *Lapathum sanguineum*. Distinguished by red veins in the leaves.

DIVISION II. FOREIGN SPECIES.

Monks Rhubarb. *MC9.101*

Lapathum folio oblongo acuto.

The root is long, very thick, and within of a strong and fine yellow.

The stalk is thick, and five feet high, purple at the base, green upwards, and branched.

The leaves are very large, oblong, of a deep green, often purplish, and have purple foot-stalks.

The flowers are very numerous, thready, and whitish.

It is a native of Germany and Italy, and flowers in May.

C. Bauhine calls it *Hippolapathum latifolium*.

The fresh root is a purge; and some have used it in the place of rhubarb; but it is vastly inferior.

D O C K S, called S O R R E L.

THE flowers and seeds in the several kinds of sorrel are of the same form with those of the common docks; but their different manner of growth, which has obtained them a separate name, demands also a peculiar description.

1. Common Sorrel.

Lapathum acetosum vulgare. *MC9.1*

The root is long, slender, and hung with some fibres.

The stalk is a foot and half high, redish at the bottom, and not branched.

The leaves have redish footstalks; and they are of a fine fresh green, of an agreeable acid taste, and of an arrow-headed shape.

The flowers are small and redish.

Nº 48.

It is common in pastures, and flowers in June.

C. Bauhine calls it *Acetosa pratensis*.

It is cooling and deobstruent.

2. Sheeps Sorrel.

Lapathum acetosum foliis lanceolatis. *MC9.2*

The root is fibrous and creeping.

The stalk is slender, of a pale green, and eight inches high.

The leaves have long, slender footstalks, and they are narrow, and of the shape of a spear-head; bearded at each side, near the base.

The flowers are small and yellowish.

It is common on dry banks, flowering in June.

C. Bauhine calls it *Acetosa arvensis lanceolata*.

Authors have, from the varieties of its growth, idly divided into two species; as they have described also under the name of a distinct species, the common sorrel, when of a more than ordinary stature.

3. Round-leaved Sorrel. *Pl. 70. 6*

Lapathum acetosum rotundifolium.

The root is fibrous and creeping.

The first leaves have long footstalks, of a purplish tinge; and they are rounded in their general shape, but auriculated at the base.

The stalk is a foot high, slender, and of a pale greyish green; as are also the leaves.

The flowers are small and brownish.

It is common in our northern counties; and, being cultivated in the rich mould of a garden, becomes the plant called *Roman sorrel*, or *round-leaved garden-sorrel*.

Ray calls it *Acetosa rotundifolia repens*. Others, *Acetosa Romana*.

GENUS XIII.

BUCKWHEAT.

FAGOPYRUM.

THE flower consists of eight filaments contained, together with three styles, and a nectarium of eight granules, in a cup: this is formed of a single piece, divided into segments; which being thin and coloured, appear as petals, but remain with the seed, which is large, single, and three-cornered. Linnæus places this among the *œtandria trigynia*.

1. Buckwheat.

Fagopyrum vulgare. Pl. 70. 11

The root is fibrous.

The stalks are light, hollow, upright, yellowish, and a yard high.

The leaves stand singly at distances: they surround the stalk at the base, and have there two ears, and terminate in a point.

Their colour is a faint, yellowish green.

The flowers are white, with a dash of purple; and they stand in tufts at the top of the stalk.

The seeds are brown.

It is found by road-sides in some places, but probably owing to scattered seeds, the plant being cultivated for the food of cattle.

C. Bauhine calls it *Erysimum Theophrasti folio bederaceo*. Others, *Fagopyrum eresium vulgare*.

2. Climbing Buckwheat, called Black Bind-weed.

Fagopyrum scandens. Pl. 70. 5

The root is fibrous.

The stalk is weak, yellowish, and a foot in length, climbing round other plants for support.

The leaves are of a triangular form, and heart-shaped at the base.

The flowers grow in long series, and are of a dusky brown.

It is common in corn-fields, and flowers in June.

C. Bauhine calls it *Convolvulus minor folio triangulari*. Others, *Convolvulus niger*, and *Fagopyrum scandens*.

GENUS XIV.

ARSMART.

PERSICARIA.

THE flower consists of eight filaments, and three styles, inclosed in a thick, fleshy cup, green on the outside, coloured white or red within, and fleshy on the hinder part. This is formed of a single piece, imperforate at the base, and divided at the edge into five oval segments. The seed is single, and triangular; and it remains covered by the cup.

Linnæus joins this genus, with the *polygonum*, among the *œtandria trigynia*.

1. Biting Arsmart.

Persicaria vulgaris acris. Pl. 70. 6

The root is fibrous.

The stalk is round, thick, jointed, irregularly upright, and a foot and half high.

The leaves are oblong, moderately broad, undivided at the edges, and of a beautiful uniform green all over.

The flowers are collected in short spikes at the tops of the stalks and branches; and they are of a bright red.

The taste of the whole plant is very acrid.

It is common in damp places, and flowers in June.

C. Bauhine calls it *Persicaria urens* *sive Hydro-piper*. Our people, *Lakeweed*, and *Biting arsmart*.

2. Small creeping Arsmart.

Persicaria pusilla repens. Pl. 70. 7

The root is fibrous.

The

The stalk is round, jointed, and green; a foot high, and not much branched.

The leaves are long, narrow, and of a fresh green.

The flowers stand at the tops of the stalks and branches in longish, but loose spikes; and are of a pale, yellowish green.

It is common in watery places, flowering in June.

C. Bauhine calls it *Persicaria minor*.

Beside these, our fertile ditch-banks afford no less than eight other species of *arismart*. These agree in their form and general manner of growth. The stalks are jointed, the leaves oblong and undivided, and the flowers spiked in all of them. Their distinctions will therefore be familiarly conveyed to the reader in an enumeration, such as we have before given under the *dock* kind, without the repetition of these common particulars in them all, in so many separate descriptions. The several species are these:

1. Narrow-leaved Arsmart, *Persicaria angustifolia*.

This produces spikes of flowers from the bottoms of all the leaves.

2. Spotted Arsmart, *Persicaria mitis maculosa*. The leaves of this are insipid, and each has a black spot.

3. Hoary Arsmart, *Persicaria folio subtus incano*. The leaves are whitish, and rough underneath.

4. Pale-leaved Arsmart, *Persicaria mitis major foliis pallidioribus*. A very tall plant, with great, pale, spotted leaves.

5. Willow-leaved Arsmart, *Persicaria foliis salicis*. The leaves are narrow, long, and silvery white.

6. Spotted-stalked Arsmart, *Persicaria latifolia mitis caule maculato*. The stalks beautifully variegated with red and purple.

7. Perennial willow-leaved Arsmart, *Persicaria salicis folio perennis*. The leaves very long, and spikes thick.

8. Procumbent Arsmart, with leaves spotted, and hoary underneath, *Persicaria maculosa procumbens foliis subtus incanis*.

GENUS XV.

KNOTGRASS.

POLYGONUM.

THE flower consists of eight filaments, three styles, and a three-cornered germen or rudiment of a fruit, placed in a cup, formed of one leaf, divided into five segments, and thick, green on the back, and white or redish on the inside. The stalks are jointed and procumbent. Linnæus places this among the *œtandria trigynia*.

1. Common Knotgrafs.

Polygonum vulgare. Pl. 70. 10

The root is fibrous.

The stalks are numerous, green, jointed, weak, and procumbent; and they have many branches.

The leaves are oblong, of a pale green, obtuse, and undivided.

The flowers stand in their bosoms; and are white, with a tinge of red.

It is common by way-sides, and flowers in July.

C. Bauhine calls it *Polygonum latifolium*.

The leaves of this plant are sometimes small and narrow, at others short and broader. This depends upon the place of growth; but, under these different appearances, it has passed upon botanists as two other distinct species, called *brevi angusto*, and *rotundifolio*.

2. Narrow-leaved Knotgrafs.

Polygonum angusto et gramineo folio.

The root is fibrous.

The stalks are numerous, a foot in length, va-

riously branched, weak, and scattered over the ground.

The leaves are very narrow, and an inch or two in length; so that they appear grassy.

The flowers are small and whitish.

It is common in waste grounds, flowering in June.

C. Bauhine calls it *Polygonum angusto et oblongo folio*.

3. Sea-Knotgrafs.

Polygonum maritimum. Pl. 70. 9

The root is fibrous.

The stalks are numerous, and spread upon the ground.

The leaves are small, oblong, and of a greyish green.

The flowers are large and white.

We have it on our sea-coasts, flowering in May.

C. Bauhine calls it *Polygonum marinum majus*.

All the species are astringent. A decoction of the common knotgrafs is excellent against loosenesses with bloody stools.

GENUS

G E N U S XVI.

BISTORT.

BISTORTA.

THE flower is composed of five small filaments, with three styles, contained in a coloured cup. This is formed of a single piece, imperforate at the base, and at the verge divided into five oval segments, which naturally close together. After this comes a three-cornered seed, upon which the cup closes and surrounds it.

Linnaeus places this among the *oëandria trigynia*; the styles being three, and the filaments eight, in each flower.

1. Common Bistort.

Bistorta vulgaris. *Pl. p. 10*

The root is thick, and irregularly shaped, brown on the surface, and red within.

The leaves have long, red footstalks; and are oblong, broad, and of a fine green.

The stalk is jointed, of a pale green, and two feet high.

The leaves on it resemble those from the root. The flowers are of a fine flesh-colour, and stand in a thick spike.

It is found in meadows, and flowers in June. C. Bauhine calls it *Bistorta radice minor intorta*. Others, *Bistorta vulgaris*.

The root is good against fluxes of all kinds dried and powdered.

2. Lesser Bistort.

Bistorta minor. *Pl. p. 11*

The root is oblong, thick, and of an irregular form.

The stalk is round, jointed, and a foot high. The leaves are long and narrow, and of a deep green.

The flowers stand in a long spike at the top of the stalk; and are of a fine flesh-colour.

We have it in Yorkshire. It flowers in June.

C. Bauhine calls it *Bistorta Alpina minor*.

3. Various-leaved Bistort.

Bistorta foliis rotundis et oblongis.

The root is thick and brown.

The first leaves are roundish, and serrated at the edges; and have long footstalks.

The stalk is four inches high.

The leaves on it are slender, and the flowers stand in a short spike.

We have it on our northern mountains. It flowers in June.

Ray calls it *Bistorta minima foliis imis subrotundis*.

G E N U S XVII.

PONDWEED.

POTAMOGITON.

THE flower has no petals. The cup is composed of four small, oval leaves, obtuse at the ends; and is succeeded by four seeds, of a roundish form, but swelling one side, and pointed. Linnaeus places this among the *tetrandria tetragynia*; the flower having four threads, and four styles.

1. Broad-leaved Pondweed.

Potamogeton latifolium. *Pl. p. 12*

The root is composed of long fibres, connected to a short head.

The stalk is weak, brown, and two feet or more in length, partly immersed in water, and partly lying on it.

The leaves under water are narrow; those on the top broad, oval, and high ribbed.

The flowers are small and whitish; and they stand in long, slender spikes.

It is common in waters, flowering in August. C. Bauhine calls it *Potamogeton rotundifolium*.

2. Perfoliate Pondweed.

Potamogeton perfoliatum. *Pl. p. 13*

The root is fibrous.

The stalk is round, and two feet or more in length, but naturally grows under water.

The leaves are of an oval form, and surround the stalk at the base.

The flowers stand in slender spikes, rising from their bosoms.

It is common in rivers, flowering in July.

C. Bauhine calls it *Potamogeton foliis latis splendidibus*.

3. Oak-leaved Pondweed.

Potamogeton quercus foliis crispis.

The root is fibrous.

The stalk is weak, and eight inches long, and grows under water.

The leaves are very beautiful, of a brownish green, oblong, obtuse, and waved at the edges.

The flowers grow in slender spikes from their bosoms, and are whitish: these also resemble the flowers of the oak.

It is common in shallow waters, flowering in July.

C. Bauhine calls it *Potamogeton foliis crispis sive Lactuca ranarum*.

Beside these, there are no less than fifteen other English species of pondweed; the general form of which being the same, we shall avoid the repetition of so many descriptions, and give their names and characters.

1. Long, pellucid-leaved Great Pondweed, *Potamogeton foliis angustis splendidibus*. Distinguished by the length of the leaf.

2. Grassy Pondweed, *Potamogeton folio angusto pellucido fere gramineo*. Smaller than the former, and the flowers larger.

3. Heart-leaved Pondweed, *Potamogeton folio cordato*. Deeply divided at the base of the leaf.

4. Frog's Lettuce, *Potamogeton medium lucens*, whose leaves grow in pairs, and are obtuse.

5. Flat-stalked, grassy Pondweed, *Potamogeton caule compresso folio graminis canini*. The leaves have no footstalks.

6. Broader-leaved, flat-stalked Pondweed, *Potamogeton gramineum latifolium*. The leaves have obscure footstalks.

7. Cluster-leaved, grassy Pondweed, *Potamogeton gramineum latis foliis et ramis stipatis*.

8. Serrated Grassy Pondweed, *Potamogeton foliis gramineis serratis latioribus caulis*.

9. Harsh-leaved Grassy Pondweed, *Potamogeton foliis gramineis rigidis*. A large plant.

10. Great-headed Pondweed, *Potamogeton maritimum grandifolius capitulis*. The leaves are very narrow.

11. Fennel-leaved Pondweed, *Potamogeton millifolium*. The leaves are very narrow, and finely divided.

12. Dwarf Grassy Pondweed, *Potamogeton pusillum gramineo folio caule tereti*. The roundness of the stalk distinguishes this.

13. Broad, thin-leaved Pondweed, *Potamogeton foliis tenuibus pellucidis*. The leaves have long, brown footstalks.

14. Feather-leaved Pondweed, *Potamogeton foliis pennatis*. The flowers grow in long, slender interrupted spikes.

15. Dwarf feathered Pondweed, *Potamogeton pennatum minus*. Smaller, and more branched than the former.

From this detail of their differences, the student will much more readily comprehend the several species than if they had been separated under so many distinct heads, and encumbered with repetitions; for the flowers are of the same form and colour in all, and the general manner of growth in nothing different.

G E N U S XVIII.

ORACH.

ATRIPLEX.

THE flowers are of two kinds, hermaphrodite and female, on the same plant. The hermaphrodite flower consists of a cup, formed of five membranaceous leaves, with filmy edges, and enclosing afterwards a single seed. The female flower consists of a cup, formed only of two leaves; which are of an oval form, large, and compressed. These afterwards serve to defend also a single seed.

Linnaeus places this among the *polygamia monœcia*; the seeds being ripened in two ways on the same plant, from hermaphrodite and female flowers.

Spear-pointed Orach.

Atriplex vulgaris folio hastato.

The root is fibrous.

The stalk is upright, two feet high, branched, and of a pale green.

The leaves are oblong, broad, and of a pale green, very broad toward the base, and terminated by a large triangular point, like the head of a spear.

The flowers are small, and whitish.

It is common in cultivated ground, and flowers in June.

C. Bauhine calls it *Atriplex sylvestris altera*. Others, *Atriplex folio deltoide*.

Beside this, there are no less than thirteen other species of wild orach, common on our dunghills; and some others of the blite kind, which are also called by the name orach, the distinction not having been obvious to the earlier writers. We shall explain that under the next genus; and shall here, as in the preceding article, enumerate the species, with their essential and distinctive parts; the general aspect being in common. This, which we begin in recounting the less conspicuous and less

useful plants, must be continued when we give the reader an idea of the grasses, mosses, and mushrooms; articles which have singly furnished the subject of volumes in folio; but which we shall comprise in a sufficient view in the few remaining numbers of this work.

The species of orach here to be enumerated are these:

1. Narrow-leaved Orach, *Atriplex angusta oblongo folio*. The flowers are very numerous.

2. Narrow-leaved Sea-Orach, *Atriplex maritima angustifolia dentata*. The leaves are indented and bluish.

3. Jagged, narrow-leaved Orach, *Atriplex angustifolia laciniata*. The leaves deeply cut, and of a pale green.

4. Perennial Sea-Orach, *Atriplex maritima perennis folio deltoide*. The leaves of a bluish green.

5. Tall Sea-Orach, *Atriplex maritima procerrior*. The leaves are deeply cut, greyish, and hoary.

6. Auriculated Sea-Orach, *Atriplex maritima ad Basin auriculata*. This is a procumbent plant.

7. Jagged Sea-Orach, *Atriplex maritima laciniata*. The plant is small, and the leaves are hoary.
8. Basil-leaved Sea-Orach, *Atriplex maritima ocyminifolia*. The leaves small, and roundish.
9. Broad-cup'd Sea-Orach, *Atriplex maritima semine lato*. It is a small upright plant.
10. Orach, called Sea-Purslain, *Atriplex frutescens halimus dicta*. A shrubby plant, with grey, oblong leaves.
11. Narrow, cluster-leaved Sea Orach, *Atriplex maritima scopariae folio*. The leaves very small and narrow.
12. Long, narrow-leaved Sea-Orach, *Atriplex maritima longissimo graminis folio*.
13. Narrow, obtuse-leaved Orach, *Atriplex maritima folio angusto obtuso*. The leaves are of a bluish green.

G E N U S XIX.

B L I T E.

B L I T U M.

THE flower has no petals. It consists of a five-leaved cup, with its filaments, and the rudiment of the fruit: the leaves of it are oval, and edged with a thin, membranaceous substance. The seed is single; and the cup closes about it, serving as a capsule, and being marked with five ridges. Linnaeus separates this from the *atriplex*, placing it among the *pentandria*, the filaments in the flower being five.

1. Blite, called Common Orach.

Blitum atriplex sylvestris dictum. Pl. p. 15

The root is fibrous.
The stalk is a yard high, branched, and of a pale green.
The leaves are oblong, and deeply sinuated; and they are also of a pale green.
The flowers are small, and of a greenish white.
It is common on dry soils, flowering in August.

C. Bauhine calls it *Atriplex sylvestris folio sinuato candicante*. Others, *Atriplex sylvestris vulgaris*.

2. Stinking Orach,

Blitum fetidum. Pl. p. 16

The root is fibrous.
The stalks are a foot long, weak, branched, and of a greyish colour.
The leaves have long footstalks; and they are of a roundish, but somewhat angulated form.
The flowers are small and greenish.
The whole plant is covered with a kind of greyish powder, and is of an extremely disagreeable smell.
It is common on dry banks, and flowers in July.

C. Bauhine calls it *Atriplex sylvestris fetida*. Others, *Blitum fetidum*, and *Atriplex olida*.

A conserve of its fresh tops is good against hysteric complaints. The other kinds have little virtue.

3. Upright Blite, called Allseed.

Blitum erectum polyspermum. Pl. p. 17

The root is fibrous.
The stalk is redish, upright, and a foot and half high.
The leaves have slender footstalks; and they are oblong, obtuse, and of a dusky green.
The flowers are small, greenish, and very numerous.
It is common in waste grounds, and flowers in August.

C. Bauhine calls it *Blitum polyspermum*.

4. English Mercury. *Pl. p. 18*

Blitum mercurialis Anglica dictum.

The root is fibrous.
The stalk is ribbed, of a pale green, branched, and a foot and half high.
The leaves have long footstalks; and they are of a yellowish green, and of an arrow-headed shape.
The flowers are small and greenish.
The whole plant is covered with greyish, fatty dust.
It is common in pastures, and flowers in June.
C. Bauhine calls it *Lapathum unguiculatum*.
It is eaten boiled, and is very wholesome.

Beside these four, which are the species of blite most distinct, there are fifteen others, natives of England; and these we shall enumerate as under the preceding kinds, distinguishing them by their proper characters.

- Goose foot, *Blitum pes anserinus dictum*. This is robust, full of branches, and with large, broad, sinuated leaves.
- Narrow-leaved Goose-foot, *Blitum pes anserinus dictum acutius folio*. The leaves deeper cut, and sharp-pointed.
- Long-spiked Goose-foot, *Blitum sinuatum spicatum*. The spikes of flowers very long, and the leaves pale.
- Pointed-leaved Goose-foot, *Blitum folio in longissimum mucronem procurrente*. The leaves very beautiful.
- Procumbent Blite, with thick, sinuated leaves, *Blitum procumbens folio sinuato lucido crasso*.
- Small, narrow-leaved, jagged Blite, *Blitum minus angustifolium laciniatum*. The seed small.
- Serrated leaved Blite, *Blitum chrysanthemi folio*. The leaves bluish, and deeply serrated.
- Fig-leaved Blite, *Blitum ficus folio*. The leaves very deeply divided into three parts in a fingered manner.
- Round-leaved Blite, *Blitum folio subrotundo*. The leaves broad, obtuse, and rounded.
- Triangular, serrated leaved Blite, *Blitum folio*

- folio triangulari dentato*. The leaves of a deep green.
11. Clustered Blite, with undivided leaves, *Blitum racemosum foliis integris*. The flowers small.
12. Small, olive-leaved Blite, *Blitum crasso olivifolio*. A small upright plant.
13. Sea-Blite, called White Saltwort, *Blitum minus album dictum*. A branched, small plant.
14. Sea-Blite, called Shrub Stone Crop, *Blitum vermicularis frutex dictum*. Shrubby, and branched.
15. Great Sea-Blite, called Tree Stone Crop, *Blitum vermicularis frutex dictum majus*. Very much branched.
16. Small, red Blite, *Blitum rubrum minus*. Small, with oblong leaves, and large flowers.

G E N U S XX.

B E E T.

B E T A.

THE flower consists only of a cup, and the organs of impregnation. The cup has five oval and obtuse leaves. The seed is contained in a brittle capsule, placed in the bottom of the cup. Linnaeus places this among the *pentandria digynia*; the flower having five filaments, and two styles.

Wild Sea-Beet.

Beta sylvestris maritima.

The root is long, thick, and perennial.
The leaves are oblong, broad, obtuse, of a whitish green, and placed on long footstalks.
The flowers stand at the tops of the stalks,

which are a yard high, and divided into many branches; and they are small and white.
It is common on our sea-coasts, and flowers in August.
C. Bauhine calls it *Beta sylvestris maritima*; a name others have copied.

G E N U S XXI.

PELLITORY OF THE WALL.

P A R I E T A R I A.

THE flowers are of two kinds, hermaphrodite and female, on the same plant. Two hermaphrodite flowers are contained in a common cup; which is formed of six leaves; two of which, placed opposite, are much larger than the others. Each of these hermaphrodite flowers is formed of a cup, divided into four parts, which afterwards lengthens, swells out, and encloses the seed. The female flowers are placed singly between two of the others, all contained in the common cup: they are of the same form with the others, and in the same manner surround the seed, but less conspicuously. Linnaeus places this among the *polygamia monacia*.

Pellitory of the Wall.

Parietaria vulgaris. Pl. p. 19

The root is fibrous, and redish.
The stalks are numerous, redish, brittle, jointed, and a foot in length.
The leaves stand very thick upon them; and are oblong, and of a dusky green.

The flowers are small and inconsiderable.
It is common on walls, and flowers in June.
C. Bauhine calls it *Parietaria officinarum et Dioscoridis*.

An infusion of the whole plant works powerfully by urine, and is excellent against the gravel.

G E N U S XXII.

GOLDEN SAXIFRAGE.

S A X I F R A G A A U R E A.

THE flower has no petals; but the cup is coloured, and resembles them: it is formed of a single piece, divided into four segments, two larger and two smaller. The seed-vessel is small, and has two beaks: this stands enclosed in the cup, and contains numerous seeds. Linnaeus places this among the *ostandria digynia*; the threads being eight, and the styles two, in each flower.

Common Golden Saxifrage.

Saxifraga aurea vulgaris. Pl. p. 20

The root is fibrous.

The stalks are numerous, weak, slender, of a pale green, and six inches high.
The leaves are rounded, but indented at the base, of a beautiful green, with short footstalks.
The

The flowers are very numerous, very small, and of a gold yellow.
It is common in woods, and flowers in April.
C. Bauhine calls it *Saxifraga rotundifolia aurea*.

An infusion of it is gently diuretick.
The leaves of this plant sometimes have the footstalks a little longer; and in that state it has been described as a distinct species.

G E N U S XXIII.

A S A R A B A C C A.

A S A R U M.

THE flower has no petals. It consists of a cup, which is formed of one piece, hollow, and divided into three segments at the edge, of a bell-like form, coloured, tough, and permanent. The seed-vessel is of a tough substance. It is contained within the substance of the cup; and is divided into six cells, with numerous seeds in each.
Linnaeus places this among the *dodecandria monogynia*; the threads being twelve in each flower, and the style single.

Asarabacca.

Asarum. Pl. 21

The root creeps just at the surface of the ground.

The leaves are roundish, but indented deeply for the stalk, and of a fine green.

The flowers grow close to the ground; and are of a greenish colour, more or less tinged with

purple. This constitutes the whole plant, for there is no rising stalk.

It is found in our northern woods, flowering in April.

All authors call it *Asarum*.

The root is a very rough vomit; but its juice, and the powder of the whole plant, are useful to promote sneezing, and draw humours from the head.

G E N U S XXIV.

L A D Y ' S M A N T L E.

A L C H E M I L L A.

THE flower has no petals. The cup is formed of one leaf: it is of a campanulated shape, and divided into eight segments, alternately larger and smaller. The seed is single, and contained in the cup.

1. Common Lady's Mantle.

Alchemilla vulgaris. Pl. 22

The root is composed of numerous fibres.

The stalks are round, not very upright, branched, and a foot in length.

The leaves are extremely beautiful: they are of a roundish form, divided into many pointed segments at the edges, and folded.

Their colour is a deep green, with a tinge of yellowish.

The flowers grow in tufts at the tops of the branches; and are yellowish and small.

It is common in our southern counties, flowering in May.

C. Bauhine calls it *Alchemilla vulgaris*.

2. Cinquefoil Lady's Mantle.

Alchemilla Alpina pentaphylla.

The root is fibrous.

The stalks are numerous, weak, and branched: they are of a silvery white.

The leaves are placed on long footstalks, five on each; and they are of a dark green on the upper side, and of a silvery white underneath.

The flowers are small and whitish.

We have it on our northern mountains, flowering in April.

C. Bauhine calls it *Tormentilla Alpina folio fericeo*. Others, *Alchemilla pentaphylla*.

3. Parsley Piert.

Percepir. Pl. 23

The root is slender.

The stalks are weak, whitish, crowded with leaves, and three inches high.

The leaves are broad, short, deeply indented, and of a greyish green.

The flowers stand in the bosoms of the leaves; and are very small and whitish.

It is common in plowed fields, and flowers in May.

C. Bauhine calls it *Cherophyllum non nihil accedens*. Others, *Percepir Anglorum*.

It is a powerful diuretick, and good in the gravel.

4. Prickly Glasswort.

Kali coeleatum. Pl. 24

The root is fibrous.

The stalks are numerous and branched, brown, and eight inches high.

The leaves are oblong, and of a dusky green; and in their bosoms stand clusters of young ones, which are smaller, and prickly at the ends.

The flowers are minute and whitish; and the seed is hollow, and twisted.

C. Bauhine calls it *Kali spinosum coeleatum*. Others, *Tragon*, and *Tragon Martialis*.

G E N U S

G E N U S XXV.

K N A W E L.

S C L E R A N T H U S.

THE flower consists of a cup, formed of a single piece, divided into five pointed segments, and containing the filaments and pistil. The seed-vessel is of an oval form, very thin, and contains two seeds.

Linnaeus places this among the *decandria digynia*; the filaments being ten, and the styles two in the flower.

1. German Knotgrass, or Knawel.

Scleranthus tenuifolius. Pl. 25

The root is fibrous and white.

The stalks are numerous, three inches high, and branched.

The leaves are narrow, oblong, and of a pale green.

The flowers are small and whitish; and they are placed in the divisions of the branches.

We have it in dry barren pastures. It flowers in June.

C. Bauhine calls it *Polygonum angustifolium minus*.

2. Great-flowered Knawel.

Scleranthus flore majore.

The root is long, perennial, and full of fibres.

The stalks are eight inches high, beautifully divided into branches, and a little hoary.

The leaves are oblong and narrow.

The flowers are large, and stand at the tops of the branches, and in the bosoms of the leaves.

We have it in barren pastures. It flowers in June.

Ray calls it *Knawel incanum flore majore perenne*.

The earlier writers were not acquainted with it.

G E N U S XXVI.

V E R T I C I L L A T E K N O T G R A S S.

C O R R I G I O L A.

THE flower has no petals. The cup is formed of a single piece, divided into five narrow segments, hairy at the ends, and is of a pentangular form. The seed-vessel is roundish, and the seed is large.

Linnaeus places this among the *pentandria digynia*; the filaments being five, and the style, though single, split at the top.

1. Verticillate Knotgrass.

Corrigiola vulgaris. Pl. 26

The root is fibrous.

The stalks are numerous, and weak, three inches long, and of a pale green.

The leaves are short, broad, of a pale green, and hairy.

The flowers are small, and white: they are placed in clusters round the stalks, in the manner of those in the verticillate plants.

We have it in the west of England toward the sea. It flowers in July.

C. Bauhine calls it *Polygala repens nigra*. Others, *Corrigiola*.

2. Thick-leaved Verticillate Knotgrass.

Corrigiola folio crasso.

The root is very long and slender.

The stalks are weak, branched, of a pale green, and four inches high.

The leaves are small, rounded, thick, and of a shining green.

The flowers are small and white.

It is found on our sea-coasts, and flowers in June.

Ray calls it *Polygonum maritimum longius radiculatum*.

G E N U S XXVII.

R U P T U R E W O R T.

H E R N I A R I A.

THE flower has no petals. The cup is formed of a single piece, divided into five pointed segments, which spread open. The seed-vessel is small, and remains in the base of the cup; and the seed is single and small.

Rupturewort.

Herniaria vulgaris. Pl. 27

The root is long and slender.

The stalks trail upon the ground, and are three or four inches long.

The leaves are small, oblong, broad, and of a yellowish green.

The flowers are very numerous, and greenish: they stand at the joints with the leaves.

The END of the THIRTY-FIRST CLASS.

THE BRITISH HERBAL.

CLASS XXXII.

Plants whose roots are fibrous or irregular; whose leaves long, narrow, and without footstalks; and whose flowers small and inconsiderable.

THIS comprehends the gramineous herbs, grasses, corn, and the like; a series of plants perfectly and obviously connected together by Nature, and as distinctly separated by their characters from all others: but modern botany disclaims those marks impressed by the Creator; and, classing all vegetables by their more minute parts, separates some of these from the others, and unites in the same class with the generality of them *valerian* and the *tamarind-tree*.

SERIES I.

BRITISH GENERA.

Those of which one or more species are native of this country.

GENUS I.

WHEAT.

TRITICUM.

THE cup holds three flowers, and is formed of two valves, of an oval, obtuse figure. The flower is formed of two valves, the outer one swelled, and the inner plain. The grain is large. Linnaeus places this among the *triandria digynia*; the threads in the flower being three, and the styles two.

1. Common Wheat.

Triticum vulgare. *Pl. 1.*

The root is fibrous.

The stalk is hollow, jointed, and five feet high.

The leaves are grassy, and of a fine green.

The ear is long and large, and naked.

We find it wild from scattered seeds.

C. Bauhine calls it *Triticum Hybernium*.

2. Bearded Wheat.

Triticum aristatum. *Pl. 2.*

The root is fibrous.

The stalk is a yard high, hollow, and jointed.

The leaves are of a strong green, and grassy.

The ear is long, thick, and bearded.

We have it wild, as the former, only from scattered seeds.

Beside these, there are five other species of wheat cultivated in our fields, with many varieties.

The descriptions of all these must be the same with those of the preceding, in root, stalk, and leaf. We shall therefore only enumerate them by their names, expressing the articles wherein they differ. They are,

1. Red Wheat, *Triticum spica et grano rubentibus*. The ear of this is larger and heavier than the common.

2. White

2. White Wheat, *Triticum spica et granis albis*. The ear and corn in this are larger than in the common.

3. Cone Wheat, *Triticum spica villosa quadrata longiore aristis munita*. The ear very rough.

4. Grey Wheat, *Triticum aristatum spica maxima cineritia glumis hirsutis*. The ear of a greyish brown.

5. Polonian Wheat, *Triticum majus longiore grano glumis foliaceis incluso*. The corn very long.

6. Many-eared Wheat, *Triticum spica multiplici*. In this kind four or more ears grow on one stalk.

7. Summer Wheat, *Triticum trimembre*. The corn short and full, and the growth only three or four months.

8. Barley-spiked Wheat, *Triticum spica bordei*. The grain is perfect wheat, but the form of the ear like barley.

GENUS II.

RYE.

SECALE.

THE cup holds two flowers, and is formed of two small, narrow pointed leaves, placed opposite. The flower is composed of two valves: the outer one is swelled, firm, and compressed; the inner one is lanceolated, and plain. The grain is large.

Common Rye.

Secale vulgare. *Pl. 3.*

The root is fibrous.

The stalk is hollow, jointed, and four feet high.

The leaves are grassy, and of a pale green.

The spike is oblong and rough.

We have it wild only from scattered seeds, as the former.

C. Bauhine calls it *Secale Hybernium vel majus*: Others, *Secale vulgare*.

A variety of this, with a smaller and more slender ear, is sown in spring, and thence called by authors *Secale vernum*.

GENUS III.

BARLEY.

HORDEUM.

THE cup holds three flowers; and is formed of six narrow and sharp-pointed leaves, two under every flower. The flower is composed of two valves: the under one is swelled, and angulated, and ends in a long awn: the upper one is smaller, plain, and lanceolated.

Linnaeus places this among the among the *trigynia*.

Common Barley.

Hordeum vulgare. *Pl. 4.*

The root is fibrous.

The stalk is round, hollow, jointed, and three or four feet high.

The ear is long, thick, and bearded with long, rough, and sharp awns.

We have it only wild, as the other, from scattered seeds.

C. Bauhine calls it *Hordeum distichum*. Others, *Hordeum vulgare*.

There are two other species:

1. Sprat Barley, *Hordeum distichum spica brevior latiore granis confertis*. The ear very short and broad.

2. Square Barley, *Hordeum polydichum*. In the ears of this there are, instead of two, six rows of grains. *Pl. 5.*

GENUS IV.

OAT.

AVENA.

THE cup contains many flowers; and is formed of two large, swelled, and pointed valves. The flower is composed of two valves: the lower one is swelled, oblong, edged, and sends from its back a crooked awn.

Common Oat.

Avena vulgaris. *Pl. 6.*

The root is fibrous.

The stalk is hollow, jointed, and a yard high.

The leaves are long, narrow, and of a pale green.

The flowers are collected in a loose panicle, and terminate the stalk.

It is wild, as the others, from scattered seeds.

C. Bauhine calls it *Avena alba*. Others, *Avena vulgaris*.

There are beside this six other kinds of oat, wild

wild or cultivated in England, distinguished by the following names:

1. Scotch Oat, *Avena alba Scotica semine simplici pediculo laxo pendente*. The corn small and long.
2. Black Oat, *Avena nigra*. Distinguished sufficiently by the colour, and needing no description.
3. Blue Oat, *Avena cerulea*. Distinguished also

by the colour, and sown principally in York-shire.

4. Brown Oat, *Avena fusca vel rubra*. The grain large, and very thick in the middle.
5. Naked Oat, *Avena nuda*. Distinguished by wanting the awn; sown principally in Cornwall.
6. Bearded wild Oat, *Egilops sive avena pilosa*. Wild in our corn, with great panicles.

GENUS V.

DOGS GRASS.

GRAMEN CANINUM.

THE cup contains three flowers; and is formed of two valves, of an oval figure, and obtuse. The flower is composed of two valves: the outer one swelled, and large; the other plain and small. The seeds are small; and they are arranged in a long, thin spike.

Linnaeus places this among the *triandria*.

Common Dogs Grass.

Gramen caninum vulgare. *Pl. 7*

The root is slender, and creeping.

The stalk is hollow, jointed, and two feet and a half high.

The leaves are long, narrow, and of a fine green.

The ear is long, and slender.

It is universal in cultivated ground; the torment of farmers and gardeners. It flowers in July.

C. Bauhine calls it *Gramen caninum vulgare*, seu *Gramen Dioecoris*.

The root is a powerful and excellent diuretick.

Of this genus there are five others, whose de-

scriptions would be tedious repetition. They differ by the following characters:

1. Bearded Dogs Grass, *Gramen caninum aristatum radice non repente*. The root fibrous.
2. Sea Dogs Grass, with a wheat-ear, *Gramen caninum maritimum spica tritica*. The spike very large.
3. Prickly Sea Dogs Grass, *Gramen maritimum spica lobacea foliis pingentibus*. The ear slender.
4. Procumbent Sea Dogs Grass, with a thick spike. *Gramen lobaceum maritimum supinum spica crassa*.
5. Long-rooted Sea Dogs Grass, with a foliaceous ear, *Gramen caninum maritimum spica foliacea*. The grains grow in the ear, and shoot out leaves.

GENUS VI.

RYE GRASS.

GRAMEN SECALINUM.

THE cup contains three flowers; and is composed of four leaves, with double points, sharp, and prickly. The flower is composed of two valves: the lower one is bellied, and terminates in a long awn; the other is small, plain, and lanceolated.

Linnaeus places this among the *triandria digynia*.

Rye Grass, called Wall Barley.

Gramen secalinum vulgare. *Pl. 10*

The root is fibrous.

The stalk is thick, jointed, not very upright, and ten inches high.

The leaves are long, narrow, and of a faint green.

The spike is short, thick, and rough.

We have it by way-sides every where.

C. Bauhine calls it *Gramen bordeaceum minus et vulgare*. Others, *Hordeum spinum*.

There are four other rye grasses, agreeing in their general form, but distinguished by the following particulars.

1. Tall Meadow Rye Grass, *Gramen secalinum pratense elatius*. Tall, and slender in the stalk and ear.
2. Marsh Rye Grass, *Gramen secalinum palustre et maritimum*. The leaves bluish, and the ear short.
3. Great Wood Rye Grass, *Gramen secalinum majus sylvaticum*. Slenderer in the ear than any other.
4. Long-leaved Rye Grass, with a short ear. *Gramen secalinum altissimum spica brevi aristis longis exstantibus*.
5. Tall, broad-eared Rye Grass, *Gramen spica brizae majus*. Tall, and very rough in the ear.

GENUS

GENUS VII.

MATWEED.

GRAMEN SPARTEUM.

THE cup contains but one flower; and it is composed of two valves; one larger than the other, and both pointed, but without awns. The flower is composed of two nearly equal valves, of an oblong form, and downy at the ends. The ear is broad, and spreading.

Linnaeus places this among the *triandria digynia*.

Sea-Matweed.

Gramen sparteum spica secalina. *Pl. 9*

The root is a tuft of white fibres.

The leaves are narrow, long, of a bluish green, and sharp-pointed.

The stalk is round, jointed, and of a pale green.

The ear is large, and whitish.

It is common by our sea-shores, and flowers in June.

C. Bauhine calls it *Gramen sparteum spicatum felis mucronatis longioribus*.

There are three other of the *matweed* grasses natives of our kingdom, distinguished by the following characters.

1. Small Matweed, *Gramen sparteum junceifolium*. The leaves rushy, and the spike thin and bending.
2. Feathered Matweed, *Gramen sparteum pennatum*. The ear downy, and resembling a feather.
3. Double-spiked Matweed, *Spartium Essexianum spica genima clausa*. The ear double.

GENUS VIII.

PANIC GRASS.

GRAMEN PANICEUM.

THE cup contains one flower; and is formed of numerous, very narrow, pointed leaves, variously inserted: within this stands a husk, formed of three valves, one smaller than the other. The flower is placed within this; and is composed of two valves, one larger than the other.

Linnaeus places this among the *triandria*.

1. Panic Grass, with a divided Spike.

Gramen panicum spica divisa. *Pl. 10*

The root is a tuft of white fibres.

The stalk is jointed, yellowish, and slender.

The leaves are long, and of a pale green.

The ear is divided into several spreading parts.

The flowers are whitish.

It is common in the meadows in Buckinghamshire, flowering in April.

C. Bauhine calls it *Gramen panicum spica divisa*.

There are three other *panic* grasses wild with us, distinguished by these characters:

1. Panic Grass, with a single, smooth ear, *Gramen panicum spica simplici levi*. The ear yellowish.
2. Rough-eared Panic Grass, *Gramen panicum spica aspera*. The spikes are loose, and very rough.
3. Pyramidal-spiked Panic Grass, *Gramen panicum scrobinum arvense spica pyramidata*. In corn-fields.
4. Variegated, spiked Panic Grass, *Gramen panicum semine albo pibularis dictum*. Common Canary grass.

GENUS IX.

SPIKED OATGRASS.

GRAMEN AVENACEUM SPICATUM.

THE cup contains only one flower: it is formed of two valves, and is of a pointed shape. The flower is composed of two valves; one terminated by an awn, and larger than the other.

Linnaeus places this among the *trigynia*.

We have only one species of it, resembling the common oat in growth.

1. Spiked Hedge Oatgrass, *Gramen avenaceum dumetorum spicatum*. The spike formed of loose parts.

G E N U S X.

DARNELL.

GRAMEN LOLIACEUM.

THE cup contains several flowers, arranged in two series close to the stalk: it is formed of a single, oblong, pointed, rigid valve. The flower is composed of two valves: the lower is narrow and round, the other short and obtuse.

Linnaeus places this with the rest among the *triandria digynia*.

Red Darnell, or Raygrass. *Pl. 11*
Gramen loliaceum angustiore folio.

The root is a thick tuft of fibres.
The leaves are of a deep green, narrow, and sharp-pointed.

The stalk is a foot high, tough, and of a dusky green.

The spike is flat, small, and brown.

It is common by way sides, and is sown in pastures for cattle.

C. Bauhine calls it *Gramen loliaceum angustiore folio et spica.*

We have four other species of it, distinguished by the following characters:

1. White Darnell Grass, *Gramen loliaceum spica longiore, sive Lolium album*. The ear long and whitish.
2. Small Sea Darnell Grass, *Gramen parvum maritimum spica loliacea*. The spike slender and hard.
3. Dwarf hard Darnell Grass, *Gramen pumilum loliaceo simile maritimum*. The leaves brownish.

G E N U S XI.

FOXTAIL GRASS.

GRAMEN ALOPECUROIDES.

THE cup contains but one flower: it is formed of two valves; which are oblong, very narrow, and terminate in feathery hairs. The flower is composed of two valves: the outer one is the longer, and has two small and strait awns from its end, and a third from the middle of its back. The two first are strait, this crooked: the inner valve is small, and pointed.

Common Foxtail Grass.

Gramen alopecuroides vulgaris. Pl. 12

The root is fibrous.

The stalk is a yard high.

The leaves are narrow, long, and of a greyish green; and they appear dusky. The spike is thick, and of a pale greyish colour.

It is common in meadows, and flowers in May.

C. Bauhine calls it *Gramen phalaroides majus, sive Italicum*. Others, *Alopecurus*.

Beside this, we have four other species, which will be sufficiently distinguished by the following characters:

1. Spiked Float Grass, *Gramen aquaticum geniculatum spicatum*. The spike smaller and slenderer.
2. Dwarf Foxtail Grass, with a silvery purplish spike, *Gramen pumilum hirsutum spica purpureo argentea mollo*.
3. Great English Marsh Foxtail Grass, *Alopecurus maxima Anglica*. Very large, in wet places near the sea.
4. Rough-eared Foxtail Grass, *Gramen alopecuroides spica aspera brevis*. The spike very rough.

G E N U S XII.

MOUSETAIL GRASS.

GRAMEN MYOSUROIDES.

THE cup contains but one flower; and is formed of two valves, of an oval form, hollow, compressed, and pointed. The flower consists of a single, hollow valve, which has a long awn rising from its back near the base.

Linnaeus ranges this with the rest among the *triandria digynia*.

Great Mousetail Grass.

Gramen myosuroides majus. Pl. 10

The root is fibrous.

The leaves are of a faint green.

The stalk is two feet high, slender, firm, and of a pale green.

The spike is rough, hard, slender, and usually tinged with red, but sometimes entirely white.

It is common in pastures, flowering in June.
C. Bauhine

C. Bauhine calls it *Gramen typhoides spica angustiore*.

We have two others:

1. Lesser Mousetail Grass, with crooked awns,

Gramen myosuroides minus spica brevior arifit recurvis.

2. Knobby-rooted Mousetail Grass, *Gramen myosuroides nodosum*. The spike brownish and short.

G E N U S XIII.

CATSTAIL GRASS.

GRAMEN TYPHINUM.

THE spike is rough. The cup contains one flower: it is formed of two valves, and is oblong and compressed. The valves are equal; and they terminate in short awns. The flower is formed of two valves, and is shorter than the cup: the outer valve is the larger, and it closes about the inner, which is smaller.

Linnaeus places this with the *triandria*.

The Greatest Cat-tail Grass.

Gramen typhinum maximum. Pl. 14

The root is fibrous.

The stalk is jointed, hollow, and a foot and half high.

The leaves are of a greyish green.

The spike is long, slender, greyish, and very rough to the touch.

It is common in pastures, and flowers in June.

C. Bauhine calls it *Gramen typhoides asperum primum*. Others, *Gramen typhinum*.

We have three others;

1. Lesser Cat-tail Grass, *Gramen typhinum minus*. A low plant, with a very slender, rough spike.
2. Knobby-rooted Cat-tail Grass, *Gramen nodosum spica parva*. The spike short, grey, and very rough.
3. Sea Cat-tail Grass, *Gramen typhinum maritimum minus*. The spike smaller at the base than upwards.

G E N U S XI.

CRESTED GRASS.

GRAMEN CRISTATUM.

THE spike is composed of two or more series of flowers, which turn one way. There is a partial cup, formed of one pointed leaf, and standing sideways. The proper cup contains several flowers; and is strait, narrow, and formed of two equal valves. The flower is composed of two valves: the outer one hollow, with an awn; the inner plain and naked.

Smooth Crested Grass.

Gramen cristatum vulgare.

The root is fibrous.

The leaves are of a fine green.

The stalk is a foot and half high, slender, and of a pale green.

The spike is crested, long, slender, and yellowish.

It flowers in May in meadows.

We have three others:

1. Square Crested Grass, *Gramen cristatum quadratum*. This has four rows of flowers.
2. Small Mountain spiked Grass, with a thick, short, blue spike, *Gramen parvum montanum spica crassiore purpureo cerulea brevi*.
3. Vernal Grass, with a loose, yellowish spike, *Gramen vernum spica brevi laxa*. Common in pastures.

G E N U S XV.

COCKSFOOT GRASS.

GRAMEN DACTYLUM.

THE spikes are numerous, and spread in the manner of fingers. There is a common scabbard, containing many flowers; and this is formed of several very narrow leaves, of unequal insertion. The cup contains only one flower; and is composed of three oval and pointed valves, one smaller than the others.

Cocksfoot

Cocksfoot Grass.

Gramen distylum vulgare. *Pl. 15*

The root is fibrous.

The leaves are narrow, not very long, and of a faint green.

The stalk is ten inches high, jointed, of a pale green, and thick set with leaves.

The spikes are numerous, very slender, and brown.

It is common in our southern counties, and flowers in July.

C. Bauhine calls it *Gramen distylum latiore folio*.

We have one other species:

1. Creeping Cocksfoot Grass, *Gramen repens cum panicula graminis manne*. Frequent on our western sea-coasts.

G E N U S XVI.

REED GRASS.

GRAMEN ARUNDINACEUM.

THE flowers are disposed in tufts or bunches. There is a covering, formed of several leaves, which contains only a single flower, and its cup. The cup is composed of three valves; one smaller than the others, and placed behind them; the others of an oval, pointed figure. The flower is composed of two valves, one larger and hollowed, the other smaller and plain.

Great, chaffy Reed Grass. *Pl. 16**Gramen arundinaceum acerosa gluma.*

The root is fibrous.

The stalk is round, five feet high, and jointed.

The leaves are large, and of a bluish green.

The tuft of flowers is compact and greyish, with a tinge of red.

It is common by waters, flowering in July.

We have five other species, whose manner of growth is the same; and their difference will be sufficiently expressed in their names.

1. Broad-leaved chaffy Reed Grass, *Gramen arundinaceum acerosa gluma jersianum*. The same with the striped grass in gardens, only plain.
2. Rough Grass, *Gramen asperum*. Common in meadows, with bluish, green, very rough leaves.
3. Common Reed, *Arundo vulgaris*. Too well known for description.
4. Reed Grass, with pappose panicles, *Gramen arundinaceum panicula molli spadicea majus*. The panicle soft and redish.
5. Small Reed Grass, *Calamagrostis minor glumis fuscis et viridibus*. The panicle variegated.

G E N U S XVII.

MILLET GRASS.

GRAMEN MILIACEUM.

THE panicle is scattered, loose, and smooth. The flowers stand singly in a twofold cup. The outer cup is formed of many very narrow leaves: the inner one is composed of three, of different bigness, but the same oval shape. The flower itself consists of two valves, one larger and hollowed, the other smaller and plain.

Millet Grass. *Pl. 17**Gramen miliaceum vulgare.*

The root is fibrous, and redish.

The leaves are broad, and of a fine green.

The stalk is a yard high.

The flowers stand in a vast scattered tuft; and are glossy and yellowish.

It is common in thickets, and flowers in June.

C. Bauhine calls it *Gramen sylvaticum panicula miliacea sparsa*.

We have sixteen others.

1. Small Creeping Millet Grass, *Gramen montanum miliaceum minus radice repente*. The tuft small.
2. Water Millet Grass, *Gramen miliaceum aquaticum*. The panicle is smooth and brown.
3. Small-headed Millet Grass, *Gramen miliaceum locustis minimis panicula arundinacea*.
4. Fair, panicled Corn Grass, or Bent Grass,

Gramen miliaceum segetale majus. The flowers purplish.

5. Loose, panicled, purplish flowered Millet Grass, *Gramen miliaceum nemorense paniculis fuscis*.

6. Red-headed Mountain Millet Grass, *Gramen miliaceum locustis rubris montanum*.

7. Long, purple-headed Millet Grass, *Gramen miliaceum serotinum panicula longa purpurascens*.

8. Narrow leaved Millet Grass, *Gramen miliaceum angustifolium folio*. The leaves deep green.

9. Narrow, fine headed Millet Grass, *Gramen miliaceum angustifolium glumis perexiguis*.

10. Great, brown Meadow Millet Grass, *Gramen miliaceum majus panicula spadicea*.

11. Green-headed Millet Grass, *Gramen miliaceum majus panicula viridi*. The leaves broad.

12. Long,

12. Long, flowered Wood Millet Grass, *Gramen miliaceum sylvestre glumis oblongis*.

13. Soft, tufted Meadow Millet Grass, *Gramen miliaceum pratense molle*. The head greenish.

14. Soft Millet Grass, with awns, *Gramen miliaceum aristatum molle*. The head brown.

15. Soft, Sea Millet Grass, *Gramen maritimum miliaceum molle*. The head greyish.

16. Brown, awned Millet Grass, *Gramen miliaceum majus glumis aristatis spadiceis et pallidis*.

G E N U S XVIII.

OAT GRASS.

GRAMEN AVENACEUM.

THE cup is formed of two valves, of an oblong figure, pointed at the end, and hollowed: the flower is composed also of two valves; the one larger, and hollowed; the other smaller, and plain. The seed is oblong.

1. Those with larger heads.

1. Single, spiked Mountain Oatgrass.

Gramen avenaceum montanum spica simplici aristis recurvis.

The root is formed of a few spreading parts, hung with innumerable fibres.

The leaves are narrow, and of a greyish green, perfectly smooth, and firm to the touch.

The stalk is slender, jointed, and a foot high.

The flowers are ranged in a slender panicle, forming a kind of spike; and they are of a pale green.

It is frequent in hilly pastures, and flowers in June.

C. Bauhine calls it *Gramen avenaceum glabrum*.

Beside this, we have a long series of other oat-grasses.

2. Purplish-headed Oatgrass, *Gramen avenaceum panicula purpureo argentea splendens*. In dry pastures.

3. Tall, shining-headed Oatgrass, *Gramen avenaceum panicula acerosa femine papposo*. The panicle slender.

4. Knobby-rooted Oatgrass, *Gramen avenaceum nodosum*. The panicle bends down on one side.

5. Small-eared, yellow-headed Oatgrass, *Gramen avenaceum pratense elatius panicula flavescens*.

6. Small headed, fine Oatgrass, *Gramen avenaceum sparsa panicula speciosa locustis minimis*. In woods.

7. Small, annual, fair, panicled Grass, *Gramen paniculatum locustis parvis purpureo argenteis annuum*.

8. Small, perennial, fair, panicled Grass, *Gramen paniculatum locustis purpureo argenteis majus et perenne*.

9. Fine-leaved, white-headed Oatgrass, *Gramen avenaceum paniculis albis capillaceo folio*. In woods.

10. Small, hoary-top'd Grass, *Gramen parvum praecox panicula laxa canescente*. In dry pastures.

11. Dwarf procumbent Oatgrass, *Gramen avenaceum parvum procumbens panicula non aristata*.

2. With small heads, without awns.

12. Common Meadow Grass, *Gramen pratense minus vulgatissimum*. This is a true oatgrass, without awns. *Pl. 18*

13. Greater Meadow-Grass, *Gramen pratense paniculatum medium*. Larger, and with paler leaves.

14. The greatest Meadow-Grass, *Gramen pratense paniculatum latiore folio*. The leaves very broad.

15. Great, narrow-leaved Meadow Grass, *Gramen pratense majus paniculatum angustiore folio*.

16. Flat-stalked Meadow-Grass, *Gramen pratense paniculatum medium caule compresso*.

17. Sea-Oatgrass, *Gramen paniculatum maritimum vulgatissimum*. The panicle greyish.

18. Matted Sea-Oatgrass, *Gramen caninum maritimum paniculatum*. In thick tufts.

19. Small, hard Grass, *Gramen exile duriusculum in muris et aridis proveniens*. On old walls;

20. Feather-headed Oatgrass, *Gramen capillaceum locustellis pennatis non aristatis*. On dry banks.

21. Ruthy-leaved Oatgrass, *Gramen foliolis junceis oblongis radice alba*. The panicle small and greenish.

22. Grass upon Grass, *Gramen sparteum montanum spica foliacea graminea*. In mountainous places.

23. Long, rough panicled Oatgrass, *Gramen arvense panicula crispata longiore*. In corn-fields.

24. Great Water Reed-Grass, *Gramen aquaticum majus*. Common by waters, with broad, pale leaves.

25. Oat-headed Reed Grass, *Gramen aquaticum arundinaceum panicula avenacea*. Very tall.

26. Smooth, broad-leaved Wood Oatgrass, *Gramen paniculatum nemorosum latiore folio panicula nutante*.

27. Long-headed Oatgrass, *Gramen paniculatum elatius spicis longis muticis squammosis*.

28. Float-Grass, *Gramen aquaticum longissima panicula*. The panicle very long, and loose.

3. With smaller heads, with awns.

29. Great Wild Oatgrass, or Drank, *Festuca avenacea sterilis elatior*. By hedges in May.

30. Upright-headed great Oatgrass, *Festuca avenacea sterilis spicis erectis*. By ditches, and on banks.

31. Wild Oatgrass, with compact panicles, *Festuca avenacea sterilis paniculis confertis erectioribus*.

32. Drooping, hard, panicled Oatgrass, *Gramen pratense*

- pratense panicula duriore laxa, unam partem spectante.*
33. Rough Oatgrass, with a compact panicle, *Festuca avenacea hirsuta paniculis minus sparsis.*
34. Fine smooth-headed Oatgrass, *Gramen avenaceum pratense gluma tenuiore glabra.*
35. Lean, panicle, smooth-headed Oatgrass, *Festuca avenacea spicis strigosioribus glumis glabris compactis.*
36. Oatgrass, with large, smooth spikes, and scattered panicles, *Festuca avenacea spicis hirsutioribus glumis glabris.*
37. Purple-awned Oatgrass, *Festuca elatior pani-*

- culis minus sparsis locustis oblongis aristis purpureis.*
38. Bush-Oatgrass, with a sparsed panicle, *Gramen avenaceum dumetorum panicula sparsa.*
29. Fine awned Oatgrass, *Gramen avenaceum glabrum panicula e spicis raris strigosis composita aristis tenuissimis.*
40. Capon's tail Grass, *Gramen murorum spica longissima nutante.* A very beautiful grass on walls.
41. Small, panicle Oatgrass, *Gramen paniculatum bromoides minus paniculis aristatis unam partem spectantibus.*

GENUS XIX.

QUAKING GRASS.

GRAMEN TREMULUM.

THE cup is composed of two valves, and contains several flowers, ranged in a double series, and in a heart-like form: the two valves composing this are hollow, of a heart-like shape, and equal in size. The flower is formed of two valves: the lower is of the shape and bigness of the cup; the upper is very small, flat, and roundish; and is placed so as to shut up the hollow of the other. The seed is roundish.

Linnaeus places this among the *triandria*.

1. Quaking Grass.

Gramen tremulum majus. *Oct. 1. 19*

The root is fibrous.

The leaves are narrow, and of a faint green.

The stalk is slender and pale; and at the top supports numerous, large heads, on very slender footstalks: these are of a pale brown, tinged with

redish, and tremble on their footstalks; thence the name.

It is common in pastures, and flowers in May. C. Bauhine calls it *Gramen tremulum majus*.

We have one other species:

2. Small Quaking Grass, *Gramen tremulum minus panicula ampla locustis parvis triangulis.*

GENUS XX.

WOOD GRASS.

GRAMEN NEMOROSUM.

THE outer cup is composed of two valves: the inner or proper cup is formed of six oblong, pointed leaves; which are coloured, and by some have been called petals. The seed-vessel is divided into three parts, and contains several roundish seeds.

Linnaeus places this among the *bexandria*, the threads being six.

1. Hairy Wood Grass. *Oct. 1. 20*

Gramen nemorosum hirsutum vulgare.

The root is composed of numerous, thick fibres.

The leaves are long, narrow, of a fine green, and covered lightly with long, brown hairs.

The stalk is a foot and half high; and at its top stand many conspicuous flowers, of a brownish colour, tinged with a little white, and placed singly on long, slender footstalks, rising from one common point at the head of the principal stalk.

It is common in woods, flowering in May.

C. Bauhine calls it *Gramen nemorosum hirsutum majus latifolium*. But there is a larger kind.

2. Great hairy Wood Grass, with a rusty panicle, *Gramen hirsutum elatius panicula juncea compacta.*
3. Greatest, broad-leaved, hairy Wood Grass, *Gramen nemorosum hirsutum latifolium maximum.*
4. Small, hairy Wood Grass, *Gramen exile hirsutum.* Common in woods, pastures, and heaths, in April.

GENUS

GENUS XXI.

CYPRUS GRASS.

GRAMEN CYPEROIDES.

THE leaves are long and narrow, and the stalks triangular.

This obvious distinction separates them from all other plants, better than the structure of their flowers, which is uncertain in the several kinds; this mark is invariable.

Linnaeus places them among the *triandria*.

1. Those with many full spikes, and a chaffy one at the top.

1. Narrow-leaved Cyperus Grass. *Oct. 1. 21*

Gramen cyperoides majus angustifolium.

The root creeps under the surface, and has many fibres.

The leaves are long, narrow, and of a fine green.

The stalk is two feet high, of a paler green, and exactly three square.

The spikes are few, and stand toward the top; and the uppermost, which is light and chaffy, is thicker than the others: this is yellowish, the others are black.

It is common by waters, and flowers in May.

C. Bauhine calls it *Gramen cyperoides majus angustifolium*.

We have a vast number of other species.

2. Great Vernal Cyperus Grass, *Gramen cyperoides cum paniculis nigris.* The leaves broad, and dark.
3. Pink-leaved Cyperus Grass, with large seeds, *Gramen cyperoides foliis caryophyllis granis tumidis rarioribus.*
4. Pink-leaved Cyperus Grass, with erect sessile spikes, *Gramen cyperoides foliis caryophyllis spicis sessilibus erectis.*
5. Pink-leaved Cyperus Grass, with pendulous heads, *Gramen cyperoides foliis caryophyllis spicis pendulis.*
6. Narrower-leaved Cyperus Grass, *Gramen cyperoides caryophyllum angustissimis foliis spicis erectis.*
7. Hairy Cyperus Grass, *Gramen cyperoides polytachion lanuginosum.* In boggy places.
8. Yellowish Cyperus Grass with short spikes, *Gramen cyperoides polytachion flavicans spicis brevibus.*
9. Great, round spiked Cyperus Grass, *Gramen cyperoides majus spicis teretibus erectis.*
10. Slender-eared Wood Cyperus Grass, *Gramen cyperoides sylvorum tenuis spicatum.*
11. Slender-eared, broad-leaved Cyperus Grass, *Gramen cyperoides latifolium spicis multis strigosis.*
12. Cyperus Grass, with a short pendulous spike, *Gramen cyperoides spica pendula brevior.* By waters.
13. Many-spiked Cyperus Grass, with long pendulous heads, *Gramen cyperoides spica pendula longior.*
14. Thick, yellow-spiked Cyperus Grass, *Gramen cyperoides praecox spicis turgidis teretibus flavescens.*
15. Cyperus Grass, with a few roundish spikes,

Gramen cyperoides spicis tribus subrotundis vix aculeatis.

16. Cyperus Grass, with short, distant spikes, *Gramen cyperoides spicis brevibus distantibus.*

17. The least Vernal Cyperus Grass, *Gramen cyperoides vernal minimum.* The heads brownish.

18. Marsh-Hedgehog Grass, *Gramen palustre echinatum.* A small plant, with short, prickly spikes.

19. Soft-leaved Cyperus Grass, *Gramen cyperoides spicis brevibus congestis folio molli.*

20. Slender-leaved Cyperus Grass, *Gramen cyperoides tenuifolium.* A small kind, with a few thick spikes. *Oct. 1. 21. 22. 23*

2. Those with several spikes at the top of the stalk, but no chaffy one.

21. Marsh Cyperus Grass, with loose spikes, *Gramen cyperoides palustre elatius spica longiore laxa.*

22. Cyperus Grass, with a head composed of soft spikes, *Gramen cyperoides spica e spicis pluribus mollibus composita.*

23. Marsh Cyperus Grass, with a divided head, *Gramen cyperoides ex monte Ballace spica divulsa.*

24. Cyperus Grass, with a soft, compound head, *Gramen cyperoides spica e pluribus spicibus longioribus composita.*

25. Sea Cyperus Grass, with a compound spike, *Gramen maritimum cyperoides spica composita.*

26. Elegant Cyperus Grass, with a rough compounded head, *Gramen cyperoides spica composita asperiore.*

27. Elegant Cyperus Grass, with a soft head, *Gramen cyperoides elegans spica composita molle.*

28. Greater-spiked Cyperus Grass, *Gramen cyperoides palustre majus spica composita.*

29. The lesser-spiked Cyperus Grass, *Gramen cyperoides spicatum minus.* The stalk droops.

30. The lesser-spiked Cyperus Grass, with an interrupted spike, *Gramen cyperoides spica divulsa minus.*

31. Narrow-leaved, short-spiked Cyperus Grass, *Gramen cyperoides angustifolium spicis brevibus in foliorum alis.*

32. The least prickly-headed, spiked Cyperus Grass, *Gramen cyperoides spicatum minimum spica divulsa aculeata.*

33. Flea-Grass, *Gramen cyperoides minimum seminibus deorsum reflexis puliciformibus.*

34. Flat-spiked Cyperus Grass, *Gramen cyperoides spica simplici compressa disticha.*

35. Small Cyperus Grass, with a crowfoot-head, *Gramen cyperoides minimum ranunculi capitulo rotundo.*

36. Long crowfoot-headed Cyperus Grass, *Gramen cyperoides minus ranunculi capitulo longiore.*

GENUS

G E N U S XXII.

C Y P E R U S.

THE cup contains many flowers, and is formed of two valves. The flower is composed of six valves, which are oblong and convergent: they are placed in an imbricated manner, and the outer ones are smallest.

1. Long Cyperus.

Cyperus longus odoratus. *Pl. 22*

The root is irregular, and oblong. The leaves are long, broad, sharp, and of a fine green.

The stalk is firm, upright, and of a paler green; and at its top there stand numerous tufted spikes, composed of little ears, on separate spreading footstalks: these are of a fine glossy brown.

We have it by pond-sides. It flowers in June.

C. Bauhine calls it *Cyperus odoratus radice longa*. The root is diuretick and deobstruent.

We have, beside this, five species of true cy-

perus, though some of them called only cyperus grasses.

2. Marsh Cyperus, with a scattered panicle, *Cyperus palustris panicula sparsa*. The spikes very short.

3. Round-rooted Bastard Cyperus, *Cyperus rotundus litoreus inodorus*. The leaves very broad and pale.

4. Long-rooted Bastard Cyperus, *Cyperus longus inodorus sylvestris*. The stalk of this is round.

5. Millet Cyperus, *Cyperus gramineus miliaceus*. The stalk three square, and the leaves narrow.

6. Small, round Cyperus, *Cyperus palustris bursatus paniculis albis paleacis.* *Pl. 23*

G E N U S XXIII.

B U L L R U S H.

S C I R P U S.

THE flowers are clustered together, in single or divided heads; and are separated one from another by small, oval, plain, but somewhat bent leaves. There is no part of a flower, except the filaments, which rise at the bases of these scales. The seeds are single, large, and three-cornered.

Linnæus places this among the *triandria*; the filaments, which in a manner constitute the flower, being three.

1. The Bullrush.

Scirpus palustris altissimus. *Pl. 24*

The root is composed of innumerable thick fibres.

The stalk is green, thick, a yard high, and spungy.

It is usually surrounded at the base by a brownish membrane, and tip'd with brown at the top; a little below the summit burst forth the flowers; they are small, brown, and forming a loose panicle.

It is common in waters, flowering in June.

C. Bauhine calls it *Juncus maximus*.

We have twelve other kinds.

1. Naked scirpi.

1. The Lesser Bullrush, *Juncus sive scirpus medius*. Two feet high, smooth, and with a slender stalk.

2. Fluted Rush, *Juncus aquaticus medius caule carinato*. The colour a pale bluish green.

3. Three-square Rush, *Juncus acutus maritimus caule triquetro maximo molli procerior*. A very tall plant.

4. Lesser prickly Sea-Rush, *Juncus acutus maritimus caule triquetro mucrone pungente*.

5. Round cluster-headed Sea-Rush, *Scirpus maritimus capitulis rotundioribus conglomeratis*.

6. Club Rush, or aglet-headed Rush, *Scirpus equiseti capitulo majori*. Common in brooks.

7. The least upright Club Rush, *Scirpus minimus capitulis equiseti*. The stalk not thicker than a large bristle.

2. Scirpi with leaves.

8. Dwarf Rush, with small aglet heads, *Scirpus montanus capitulo breviori*. In hilly pastures.

9. Round, black-headed Marsh Rush, *Juncus levis minor capitulo glomerato nigricante*.

10. The least Rush, *Scirpus foliaceus humilis*. Common in damp places, where the soil is poor.

11. Marsh Rush Grass, with seawort heads, *Scirpus equiseti capitulo minore*. In watery places.

12. Many-headed leafy Rush, *Gramen juncum polytachion*. The panicle very loose and scattered.

G E N U S

G E N U S XXIV.

R U S H.

J U N C U S.

THE flower is composed of a six-leaved cup, with the filaments and rudiment of a seed-vessel. The leaves of the cup are oblong, sharp-pointed, and permanent. The seed-vessel is large, and divided into three parts.

1. Scirpi without leaves.

1. Pricking, large Sea-Rush.

Juncus acutus capitulis forghi.

The root is composed of innumerable fibres, interwoven in a strange manner with one another.

The stalk is two feet high, firm, hard, of a pale green, and prickly at the top.

The flowering heads are brown; and they stand clustered together.

It is common by the sea-side, flowering in June.

We have twelve other species, including what are called *rush-grasses*.

The reader will see, by the different structure of the flowers, how very improperly the *junci* and *scirpi* are called in English by the common name *rush*. We have in this enumeration retained the names by which they are described in the works of our own writers, as it is under them they are familiarly known: but the judicious reader will see from their place to which head they properly belong.

Were the purpose here sole curiosity, a volume might be employed on the grasses alone; but we hope to convey a just idea of the species of these, and the other less useful plants, by these enumerations, without swelling the volume beyond the intended size.

2. English Sea Hard Rush, *Juncus acutus maritimus Anglicus*. The stalk solid, and two feet high.

3. Common Hard Rush, *Juncus acutus vulgaris*. The stalk hard, striated, and prickly at the top.

4. Common soft Rush, *Juncus levis vulgaris*. The stalk soft and spungy.

5. Soft Rush, with a compact panicle, *Juncus levis panicula compacta*. The stalk is striated.

6. Long-top'd Rush, *Juncus parvus calamo supra paniculum longius productio*.

2. Rushes, with leaves.

7. Moss Rush, or Goose-corn, *Juncus montanus palustris*. The leaves spread on the ground as rays.

8. Small Rush grass, with jointed leaves, *Juncus foliis articulatis floribus umbellatis*.

9. Wood Rush grass, or great Rush grass, with jointed leaves, *Juncus nemorosus folio articulato*. The heads brown. *Pl. 25*

10. Rush grass, with round seed-vessels, *Juncus parvus pericarpis rotundis*.

11. The least triangular-seeded Rush grass, *Juncus capsulis triangulis minimis*.

12. Toad-Grass, *Juncus palustris humilior erectus*. The stalk is branched, and four inches high.

13. Dwarf Toad-grass, *Gramen juncoides minimum Anglo-Britanicum*. The heads oval.

G E N U S XXV.

A R R O W G R A S S.

T R I G L O C H I N.

THE cup is formed of three hollow, oval, obtuse leaves. The flower is formed of three petals, of a pale colour, and resembling them in shape. The seed-vessel is oval, and large. Linnæus places this among the *hexandria*.

1. Common Arrow Grass.

Triglochin vulgare. *Pl. 26*

The root is composed of numerous fibres.

The leaves are narrow, numerous, and of a fine green.

The stalk is a foot high, and the flowers terminate it in a long and slender spike.

It is common in salt-marshes, and flowers in June.

C. Bauhine calls it *Gramen juncum spicatum sive Triglochin*.

2. Sea spiked Grass, *Gramen maritimum spicatum*. Small, and with very numerous, narrow leaves.

G E N U S XXVI.

COTTON GRASS.

L I N A G R O S T I S.

THE flowers consist only of filaments, three to each, which are separated from one another in the cluster by small, oblong leaves. The seed is single, and is surrounded with long threads. Linnaeus places this among the *triandria*, and gives it the name *eriphorum*. Others call it *gramen tomentosum*.

1. Cotton Grass.

Linagrostis vulgaris. *My. 27*

The root is composed of numerous fibres. The leaves are grassy, narrow, and of a deep green.

The stalk is a foot and half high, of a purplish brown at the bottom, and of a fine green upwards.

The flowers stand at the top, and are small

and inconsiderable; but the filaments which surround the seeds are long, white, and cottony.

It is common on bogs, and flowers in August.

C. Bauhine calls it *Gramen tomentosum panicula spuria*.

We have only one other species of it.

2. Hair's-tail Rush, *Juncus Alpinus cum cauda leporina*. This is a proper *linagrostis*; the head truly woolly.

G E N U S XXVII.

CAT'S-TAIL.

T Y P H A.

THE flowers are male and female on the same plant. The male flowers are ranged in great numbers in a catkin, which terminates the stalk; and the female flowers are placed in a long body, also of the catkin kind, which closely surrounds it in a compact, firm substance. The male flowers are composed each of three narrow leaves, with the same number of filaments, which are closely arranged in the upper catkin. The female, which are lodged in the compact substance, have for a cup numerous hairs of a pappous structure, and within these a rudiment of a fruit fixed on a filament. This ripens into a single seed, and there grow numerous capillary filaments from that which supports it. These together make the thick substance called the *cat's-tail*.

Linnaeus places this among the *monœcia triandria*.

1. Cat's-tail.

Typha vulgaris. *My. 20*

The root creeps under the surface, and has many fibres.

The leaves are long, and of a fine green.

The stalk is four feet high; and at its top stand the female flowers in a very thick spike, terminated by the male catkin; the whole of a fine velvety brown.

It is common by waters, and flowers in August.

C. Bauhine calls it *Typha palustris major*.

We have two other species.

2. The middle Cat's-tail, *Typha palustris media*. The spike is much slenderer than in the other.

3. The least Cat's-tail, *Typha palustris minor*. The spike in this is thick and short, and blackish.

G E N U S XXVIII.

BUR REED.

S P A R G A N I U M.

THE flowers are of two kinds, male and female, on the same plant. The male flowers are collected into a roundish button, and consist each of a three-leaved cup, with three filaments. The female flowers are numerous, and fixed to a round receptacle: these have no cup, but consist only of a rudiment of a seed vessel: these also are collected into rounded heads.

1. Bur Reed.

Sparganium vulgare. *My. 29*

The root is creeping, and has many fibres.

The leaves are of a bright green.

The stalk is two feet high, and divided into many branches.

The flowers are whitish; and the fruit is round, green, hard, and echinate.

It is common by waters, and flowers in June.

C. Bauhine calls it *Sparganium ramosum*. Others, *Sparganium vulgare*.

We have two other species.

2. Bur Reed, not branched, *Sparganium non ramosum*. Smaller, and with an upright stalk.

3. The least Bur Reed, *Sparganium minimum*. The leaves are very long, and the heads small.

G E N U S XXIX.

A C O R U S.

THE flowers are ranged together on a long and elegant receptacle, of the shape and bigness of a finger: they are composed each of six hollow, obtuse leaves, with the same number of threads. The seed-vessel is short, triangular, and contains several oblong, oval seeds.

Linnaeus ranges this among the *hexandria monogynia*; the filaments being three, and the style single.

Common Acorus.

Acorus vulgaris.

The root is long, thick, and creeping; and is of a pleasing, warm, and aromatick taste.

The leaves are two feet long, of a yellowish green.

The catkin is of a yellowish brown.

We have it by ponds in some parts of England.

C. Bauhine calls it *Acorus verus seu Calamus aromaticus officinarum*.

The root is stomachick and deobstruent; but it does not in our cold climate attain its full virtue.

The END of the THIRTY-SECOND CLASS.



THE

BRITISH HERBAL.

CLASS XXXIII.

TREES and SHRUBS.

THE vegetables of this class carry their distinction in the most obvious manner in their outer form; yet modern systems do not preserve them separate. The late writers in general place in the same classes those trees and herbaceous plants, whose flowers have the same number of filaments: but in this work, intended to familiarise the science, we have kept them, as they are in nature, distinct.

SERIES I.

TREES whose male and female flowers are separate.

GENUS I.

THE WALLNUT.

NUX.

THE male flowers are in catkins; and each is divided into six parts. The female flowers stand two or three together on other parts of the tree: each consists of a cup, divided into four parts, with a single petal, divided also into four parts, and an oval rudiment, which afterwards becomes the fruit, consisting of a fleshy covering, with a shelly substance within, enclosing an uneven kernel.

1. The Walnut Tree.

Nux vulgaris. *Pl. 2. 1*

The tree rises to a great height, and spreads irregularly into branches.

The leaves are pinnated; the pinnæ vast, oblong, and of a fine green.

The catkins are brownish, with a tinge of green, and the fruit covered with a green rind.

It is wild in Scotland; and is planted every where for the fruit.

The skin surrounding the kernel is a good astrigent.

GENUS II.

HAZLE.

CORYLUS.

THE male flowers are in catkins, and consist of numerous filaments: they are separated by scales, divided at the top into three parts, which turn back. The female flowers stand at a distance from these, and are enclosed in a bud. The cup is formed of two leaves, and is ragged at the edges: these are so small as to be scarce distinguishable. From the rudiment of the fruit rise two feathered and coloured styles. The fruit is a nut, contained in the cup, which enlarges greatly.

The

The BRITISH HERBAL.

509.

The Hazle.

Corylus vulgaris. *Pl. 2. 3*

This is a shrub of ten feet high.

The bark is brown.

The leaves are roundish, rough on the surface, serrated, and sharp-pointed.

The catkins are brown, and the female flowers are red.

It is common in hedges and woods.

C. Bauhine calls it *Corylus vulgaris*.

GENUS III.

BEECH.

FAGUS.

THE male flowers compose a kind of globular catkin: they are formed of a one-leaved cup, divided into five parts; and have no petals, but numerous filaments. The female flower is enclosed in a bud; and consists of a cup, divided into four segments, which afterwards harden, and form a covering or shell to the fruit. This is composed of large seeds laid close together.

The Beech.

Fagus vulgaris. *Pl. 2. 3*

The tree is large, the bark smooth and pale.

The leaves are broad, short, and of a dusky green.

The flowers are greenish; and the fruit, or mast, when ripe, is hard and brown.

It is common in woods.

C. Bauhine, and all others, call it *Fagus*.

GENUS IV.

CHESNUT.

CASTANEA.

THE male flowers are disposed in long catkins, and are of the same structure with those of the beech. The female flowers are also of the same form with those of beech: the fruit is larger.

Common Chestnut Tree.

Castanea vulgaris. *Pl. 2. 4*

The tree is large, and spreads out into many branches.

The leaves are long, serrated, sharp-pointed, and of a beautiful dark green.

The catkins are of a whitish green, and the fruit very large.

It is wild in some of our woods, and cultivated every where for its fruit.

C. Bauhine calls it *Castanea sylvestris*.

GENUS V.

OAK.

QUERCUS.

THE male flowers make a loose catkin: each consists of a cup, divided into five segments, and several threads. The female flowers are enclosed in a kind of buds. The cup is half round, and undivided; and contains an oval rudiment, which afterwards becomes the acorn.

1. The Oak.

Quercus vulgaris. *Pl. 2. 5*

The tree grows to a vast height and bigness, spreading into innumerable and irregular branches.

The leaves are large, oblong, obtuse, deeply sinuated, and of a dark green.

The fruit needs no description.

We have one other species, distinguished by the shortness of the footstalk, which supports the acorn.

2. Oak, with acorns on short footstalks, *Quercus latifolia* mas *brevi pediculo*.

GENUS VI.

FIR.

ABIES.

THE male flowers are disposed in racemous catkins; and consist only of filaments, with the scaly parts of the bud as cups. The female flowers are arranged many together in a common cup, of a conic form, and consist only of a rudiment of a fruit, with a short style: one is lodged under every scale of the cone.

N^o 50.

60

The

The Yew-leaved Fir.

Abies conis sursum spectantibus. *Pl. 6.*

The trunk is thick, and covered with a redish brown bark.

The branches are numerous, and spreading.

The leaves grow in two series, resembling those of the yew-tree; and are of a deep green above, and of a silvery grey below.

The cones are large, brown, and stand upwards.

We have it in Scotland, and some other places.

C. Bauhine calls it *Abies conis sursum spectantibus* five mas.

We have one other species also native:

The common Fir or Pitch tree, *Abies rubra*. Its leaves grow irregularly, and the cones hang downwards.

What is called the *Scotch fir* is distinct from both these: it is the *wild pine*. The leaves are long and bluish.

G E N U S VII.

A L D E R.

A E N U S.

THE male flowers are disposed in cylindrick catkins, and three are placed on each scale of the cup. Each is formed of a single minute leaf, cut at the edge into four segments. The female flowers are placed in oval catkins; and have no petals, but rudiments of seeds under the scales of the catkin, which afterwards becomes a small cone.

The Alder.

Alnus vulgaris. *Pl. 7.*

It is naturally a shrub of free growth.

The bark is glossy and purplish.

The leaves are large, roundish, and clammy; and the cones are brown.

It is common by waters.

C. Bauhine calls it *Alnus rotundifolia glutinosa viridis*.

We have a variety of this called the *scarlet alder*; in which there are red membranes under the cones, owing to accident.

G E N U S VIII.

B I R C H.

B E T U L A.

THE male flowers are placed in cylindrick catkins; and are formed of a single petal, divided into four oval segments: three of these stand on each scale of the cup. The female flowers consist only of rudiments of seeds, placed among the scales of oblong catkins. Linnaeus places this and the former among the *monocia tetrandria*.

The Birch Tree.

Betula. *Pl. 100.*

The tree is tall and regular in growth.

The bark is smooth and glossy, pale on the body, but purplish at the twigs.

The leaves are oval, pointed, serrated, and glossy.

It is common in woods.

All authors call it *Betula*.

G E N U S IX.

S W E E T G A U L.

G A L E.

THE male flowers are placed in a loose, oval catkin, and consist only of filaments under the scales of the catkin. The female flowers are disposed in the same manner on different plants; and have only a rudiment of a fruit, which, when ripened, is dry, skinny, and compressed at top.

Sweet Gaul.

Gale. *Pl. 101.*

It is a low shrub of a foot and half.

The bark is smooth, and deep coloured.

The twigs are slender; the leaves are oblong, undivided, and of a pale green.

The flowers are brown.

We have it in boggy ground.

C. Bauhine calls it *Rhus myrsifolia Belgica*.

The leaves, where bruised, have a coarsely aromatic smell.

G E N U S

G E N U S X.

J U N I P E R.

J U N I P E R U S.

THE male flowers are placed in long catkins by threes; and they have each a scale at the base: besides this there are only filaments. The female flower has a cup divided into three parts, and three hard pointed petals. The fruit is a round berry, containing three seeds. Linnaeus places this among the *diœcia monadelphica*.

Common Juniper.

Juniperus vulgaris. *Pl. 10.*

It is commonly a shrub of six feet high, but will rise to a tree in some places.

The branches are numerous.

The leaves are set very thick, and they are small, narrow, of a pale green, and sharp at the point.

The male flowers grow on some trees, and the fruit on others: this is a round, purplish berry, covered with a grey powder.

We have it common on heaths.

C. Bauhine calls it *Juniperus vulgaris fruticosa*.

The berries are an excellent carminative and diuretick; as is also the wood.

We have two other species.

1. Dwarf Mountain Juniper, *Juniperus Alpina*. The leaves of this are broader than in the other.

2. Savine, *Sabina*. This is properly a species of the *juniper* with broader leaves: famous for promoting the menses. *Pl. 11.*

G E N U S XI.

B L A C K E M P E T R U M.

E M P E T R U M.

THERE are three kinds of flowers, male, female, and hermaphrodite, all on distinct plants. The male flower has a cup divided into three parts, and three small, oval petals; this is succeeded by a berry. The male flowers are formed as the hermaphrodite, but have no rudiment of a fruit, nor are succeeded by any berry. The female have all the parts of the hermaphrodite flowers, but no filaments.

Linnaeus places this among the *trixia*. The farina from the male flower impregnates the female; and the hermaphrodite impregnate themselves.

Black berry'd Empetrum.

Empetrum fructu nigro. *Pl. 12.*

The shrub is low and small; the branches trail upon the ground, and the bark is red and glossy.

The leaves stand thick and irregularly, and are oval, short, and pointed.

The berries are black and shining.

We have it on boggy heaths.

C. Bauhine calls it *Erica baccifera procumbens nigra*. Others, *Empetrum nigrum*. Our people, *Crowberries*, and *Crakeberries*.

G E N U S XII.

B O X.

B U X U S.

THE male flowers rise from the buds of the branches, and are formed of two roundish, hollowed leaves, placed in a three-leaved cup. The female flowers grow among them, and have a four-leaved cup and three petals. The seed-vessel is round, and has three beaks.

Linnaeus places this among the *monocia tetrandria*.

1. Common Box.

Buxus vulgaris. *Pl. 13.*

It is naturally a bushy, low shrub.

The bark is pale; the wood yellow; the leaves hard, roundish, and firm.

The flowers are of a greenish white.

It is wild in Kent and elsewhere.

C. Bauhine calls it *Buxus arborescens*.

The wood has the virtues of guaiacum, as a sudorific and sweetener of the blood.

We have another species.

2. Narrow-leaved Box, *Buxus angustifolia*. The leaves sharper at the point, and the branches fewer.

G E N U S

G E N U S XIII.

SEA BUCKTHORN.

RHAMNOIDES.

THE male flower has a cup formed of one leaf, divided into two parts, and whole at the bottom: the points of the two segments converge; but they gape at the sides: there are no petals, but only four filaments in this: the female flower has a tubular cup, divided also into two parts at the edge; and in it a rudiment of the succeeding berry.

Sea Buckthorn.

Rhamnoides. *Pl. 14.*

It is a shrub of eight feet high.

The branches are numerous, and the bark is pale.

The leaves are long and narrow, of a pale

green on the upper side, and of a silvery grey underneath.

The flowers are greenish and the berries yellow.

We have it on the sea-coasts.

C. Bauhine calls it *Rhamnus salicifolia angustifolia*.

G E N U S XIV.

YEW.

TAXUS.

NEITHER the male nor female flower have cup or petals. The male consists of numerous filaments united at their bottom; the female of a rudiment of the fruit. This is singular, and unlike that of all known plants, a single seed covered with a firm skin, and surrounded by a juicy substance.

Linnaeus places this among the *diœcia monadelphica*.

The Yew-Tree.

Taxus vulgaris. *Pl. 15.*

It grows to an irregular tree, spreading wildly into branches.

The leaves are long, narrow, and placed with a beautiful regularity.

The flowers are yellowish.

The berries are surrounded with a sweet juicy matter.

We have it in woods, but more in gardens.

All authors call it *Taxus*.

The leaves are poisonous; but the wood, if it grew with more regularity, would be very valuable.

G E N U S XV.

POPLAR.

POPULUS.

THE male flowers have no petals: they are placed in catkins, and consist of a nectarium, which is hollow, and cut off obliquely at the top so as to form an oval rim; and with this eight filaments with large buttons, but no rudiment of a seed-vessel. The female flowers are formed and disposed as the male; but they have the rudiment of a seed-vessel, and no filaments. The seed-vessels are oval, and the seeds downy.

The White Poplar.

Populus alba. *Pl. 16.*

The tree is tall, and its bark whitish.

The leaves are large, broad, sinuated, and hung on long footstalks: they are of a deep green on the upper side, and white underneath.

The flowers are brownish.

We have it by waters.

C. Bauhine calls it *Populus alba majoribus foliis*.

We have two other species.

1. The black poplar, *Populus nigra*. The leaves divided like ivy, and of a blackish green.

2. The Aspen-tree, or trembling Poplar, *Populus tremula*. The leaves roundish, on very long, slender footstalks. *Pl. 17.*

G E N U S XVI.

WILLOW.

SALIX.

THE male flowers are placed in catkins, and consist of a hollow nectarium and two filaments. The female flowers are hung in catkins, like the male, and consist only of a rudiment of a fruit. The seed-vessel is oval and pointed. The seeds are downy.

Common
2

1. Common White Willow.

Salix alba vulgaris. *Pl. 18.*

This will grow to a large tree.

The bark is rough, and of a pale brown on the trunk, and on the branches of a whitish grey.

The leaves are long, narrow, sharp-pointed, and of a whitish colour.

The catkins are brownish.

It is common by waters.

C. Bauhine calls it *Salix alba arborescens*.

We have twenty-one other species.

2. Low, hoary long-leaved Willow, *Salix pumila rhamnifolia clusii folio*. A very small shrub.

3. Woolly, white-leaved Dwarf Willow, *Salix pumila foliis utrinque candicantibus*. The leaves oblong, and white on both sides.

4. Dwarf, narrow-leaved Willow, woolly underneath, *Salix pumila angustifolia inferna parte lanuginosa*.

5. Common, creeping Dwarf Willow, *Salix pumila angustifolia prona parte cinerea*. The leaves very narrow.

6. Round-leaved Dwarf Willow, *Salix apina pumila rotundifolia repens*. The leaves white underneath.

7. Alder-leaved Mountain Willow, *Salix alpina alni rotundo, folio repens*. The leaves green on both sides.

8. Crack Willow, *Salix folio longo latoque splendens fragilis*. The leaves yellowish, the branches brittle.

9. Round-eared, shining Willow, *Salix folio au-*

riculato splendens. The leaves oblong, with round appendages.

10. Almond-leaved Willow that casts its bark, *Salix folio amygdalino utrinque aurito corticem abjiciens*.

11. Yellow Dwarf Willow, *Salix humilior foliis angustis subaculeis ex adverso binis*. The bark yellow.

12. Bay-leaved Sweet Willow, *Salix folio laureo, seu lato glabro odorato*. The leaves sweet scented.

13. Round-leaved, mountain Dwarf Willow, *Salix pumila folio rotundo*. The leaves thick and blackish.

14. Long, entire-leaved Willow, *Salix minime fragilis foliis longissimis utrinque viridibus non ferratis*.

15. Common Sallow, *Salix latifolia et rotunditate acuminata*. In hedges, the leaves of a pale green and rough.

16. Round-leaved Sallow, *Salix latifolia folio rotundo*. Common in hedges with the former.

17. Small-leaved Sallow, *Salix folio rotundo minore*. The leaves small, and of a pale green.

18. Creeping Sallow, *Salix caprea pumila folio subrotundo incano*. Scarce a foot high.

19. Long-leaved Sallow, *Salix caprea acuto longo quefolio*. The leaves long and pointed.

20. Sallow with a shining leaf, *Salix latifolia folio splendens*. A low kind with yellow bark.

21. The Osier, *Salix folio longissimo*. The leaves extremely long, and the twigs tough.

22. Long-leaved, yellowish Sallow, *Salix folio longo sublateo non auriculato viminibus luteis*.

G E N U S XXIII.

HORNBEAM.

OSTRYA.

THE male flowers are placed in a cylindrick catkin: they consist only of filaments growing from the scales of the catkin. The female are placed in an oblong catkin, and consist of only a rudiment of the fruit.

The Hornbeam.

Ostrya ulmo similis. *Pl. 19.*

The tree is of a moderate growth:

The leaves are oblong, of a fine green, serrated at the edges, and placed upon short footstalks.

The flowers are inconsiderable; but the fruit is large and foliaceous.

We have it in some of our woods.

C. Bauhine calls it *Ostrya ulmo similis*. Others, *Carpinus*.

S E R I E S II.

Trees and shrubs which have fruit after all the flowers.

G E N U S I.

The A P P L E.

M A L U S.

THE flower is placed in a cup divided into five segments; and is composed of five large, roundish petals. The fruit is roundish, fleshy, and contains several oblong seeds. Linnaeus places this among the *icosandria pentagynia*; the filaments being numerous and inserted in the cup, and the styles five:

The Crab.

Malus sylvestris vulgaris. *Pl. 20.*

The shrub is tough, and spreads into many branches, which are knotty, and covered with a purplish rind.

The leaves are broad, short, pointed, and of a deep green.

The flowers are large and flesh-coloured; their buds very red.

It is common in hedges.

C. Bauhine calls it *Malus sylvestris*.

G E N U S II.

P E A R.

P Y R U S.

THE flower is placed in a cup, divided into five segments, and is composed of five large petals. The fruit is oblong, fleshy, and has within several oblong seeds. Linnaeus places this with the former.

The wild Pear-Tree.

Pyrus sylvestris. *Pl. 21.*

The tree is tall and spreading.

The bark is rough and brown.

The leaves are broad, oblong, and of a pale green.

The flowers are large and white.

The fruit is yellow, and harsh to the taste.

We have it in hedges in the north of England.

C. Bauhine calls it *Pyrus sylvestris*.

G E N U S III.

S E R V I C E.

S O R B U S.

THE flower is placed in a cup, divided into five light segments, and is composed of five broad petals. The fruit is soft, roundish, and umbilicated; and the seeds are three. Linnaeus places this among the *icosandria pentagynia*.

1. The True Service.

Sorbus legitima. *Pl. 22.*

The tree grows to a considerable size, and spreads out into many branches.

The leaves are beautifully disposed, and are pinnated, oblong, sharp-pointed, and of a fine green.

The flowers stand in clusters; and are small and white.

The fruit is large, oblong, pear-shaped, and brown.

We have it in woods in Staffordshire:

C. Bauhine calls it *Sorbus sativa*.

The fruit when mellow is very pleasant.

We have two other species.

1. The common Service, *Sorbus terminalis*. The leaves broad, and deeply divided; and the fruit small. *Pl. 23.*

2. The Quicken-tree, *Sorbus sylvestris foliis domesticis similis*. The leaves like those of the ash, and the fruit red. *Pl. 24.*

G E N U S

G E N U S IV.

M E S P I L U S.

THE flower is placed in a cup, lightly divided into four segments; and is composed of five roundish petals, with numerous filaments. The fruit is fleshy, roundish, and umbilicated. Linnaeus places this among the *icosandria pentagynia*.

1. The White Beam.

Mespilus alnifolia subius incano. *Pl. 25.*

The tree grows to a moderate bigness.

The bark is pale and smooth.

The leaves are oblong, broad, obtuse, and lightly dented: of a dark green on the upper side, and whitish underneath.

The flowers are small and white; and the fruit is small and roundish.

We have it in our western counties.

C. Bauhine calls it *Alni effigie lanato folio*: but its most usual name is *Aria Theophrasti*.

We have three other species of *Mespilus*.

1. The common White Hawthorn, *Mespilus alii folio vulgaris spinosa*.

2. Oblong-leaved Mespilus, *Mespilus vulgaris folio laurino*.

3. Great-leaved Mespilus, *Mespilus foliis et fructu majoribus*.

G E N U S V.

R O S E.

R O S A.

THE flower is placed in a large cup, thick, and rounded at the base, and divided at the edge into five long segments; and it is composed of five broad petals, with numerous filaments. The fruit is formed of the thick base of the cup; and contains many seeds. Linnaeus places this among the *icosandria polygynia*.

The Burnet Rose. *Pl. 3. 1.*

Rosa pumila spinosissima foliis pimpinella.

This is a little but very pretty shrub.

The branches are tough, and their bark is brownish.

The leaves are pinnated, and the pinnæ are short, serrated, and roundish: their colour is a dark green.

The flowers are large, and of a very pale flesh colour.

The fruit is small, red, and roundish.

It is common in hedges, and flowers in June.

C. Bauhine calls it *Rosa sylvestris pomifera*. Others, *Rosa foliis pimpinelle*.

We have five other species.

1. The common Briar, or Dog-rose, *Rosa sylvestris inodora, sive canina*. Common in all hedges.

2. Wild Briar with large, prickly hips, *Rosa sylvestris fructu majore hispido*. In hedges.

3. Sweet Briar, *Rosa sylvestris odora*. We have this wild in our southern counties.

4. White-flowered Dog-rose, *Rosa sylvestris minor flore albo*. The leaves broader and shorter.

5. The great English Apple-rose, *Rosa sylvestris pomifera major*. The fruit as big as a small pear.

G E N U S VI.

C U R R A N T.

R I B E S.

THE cup is rounded, swollen, and divided into five segments. The flower consists of five small, roundish petals. The fruit is rounded, juicy, and contains many seeds. Linnaeus places this among the *pentandria monogynia*.

We have four species wild in our northern counties.

1. The common Currant, *Ribes vulgaris fructu rubro*. Cultivated also every where in gardens.

2. The Sweet Currant, *Ribes vulgaris fructu dulci*. The leaves broader and larger.

3. Small-fruited Currant, *Ribes fructu parva*. The fruit and leaves both very small.

4. The black Currant, *Ribes nigrum*. The leaves of an ill smell. The jelly of this cures sore throats.

G E N U S

GENUS VII.

WHORTLE.

VITIS IDEA.

THE cup is placed on the rudiment of the fruit, and is very small. The flower is formed of a single petal, and is divided into four segments at the rim, which turn back. The body of it is hollow. The fruit is a round berry, in which are several seeds in four cells.

1. The red Whortle.

Vitis idea fructu rubro. *Pl. 73. 2*

This is a small shrub, with slender, purplish branches.

The leaves are roundish, and of a dark green; obtuse at the ends, and not at all serrated at the edges.

The flowers are greenish, with a tinge of red.

The berries are round, red, and well tasted.

It is common in our northern counties on boggy ground.

C. Bauhine calls it *Vitis idea foliis subrotundis non crenatis baccis rubris*.

We have three other species.

1. The great Billberry-bush, *Vitis idea magna*. The shrub is larger, and the berries round and black.

2. Angular-stalked Billberry-bush, *Vitis idea angulosa*. The twigs green and ridged; and the berries black.

3. Myrtle-leaved Billberry-bush, *Vitis idea foliis myrtinis crispis*. The leaves curled, and the fruit black.

GENUS VIII.

HONYSUCKLE.

CAPRIFOLIUM.

THE cup is small, and divided into five parts. The flower is formed of a single petal, which is tubular, long, and slender; and at the rim divided into five segments, which turn back. The fruit is a roundish, umbilicated berry.

Linnaeus places this among the *pentandria monogynia*.

1. Common Honeysuckle.

Caprifolium vulgare. *Pl. 73. 3*

The shrub is small; the branches tough, slender, weak, and climbing.

The leaves are oblong, large, and of a bluish green.

The flowers stand in handsome tufts at the tops of the branches; and are of a fine pale yellow with some white among it.

The berries are red.

It is common in hedges, and flowers in July. C. Bauhine calls it *Caprifolium non perfoliatum Germanicum*.

We have one other species.

2. Oak-leaved Honeysuckle, *Caprifolium non perfoliatum foliis sinuatis*. The leaves deeply sinuated.

GENUS IX.

IVY.

HEDERA.

THE cup is very small, and has five dents at the edge. The flower is composed of five oblong petals, with crooked tips. The fruit is a round berry. Linnaeus places this among the *pentandria monogynia*.

Common Ivy.

Hedera vulgaris. *Pl. 73. 4*

The stem is woody, and climbs; fixing itself by tendrils, in manner of roots.

The leaves are of a blackish green, and various figure; some oblong and simple; others divided into three lobes.

The flowers are placed in tufts, and are of a greenish white.

The berries are black.

It is common in hedges and against walls of old buildings.

C. Bauhine calls it *Hedera arborea*.

GENUS X.

WATER ELDER.

OPULUS.

THE flowers are placed in umbells on subdivided branches. The cup is minute, and dented in five places at the edge. Each flower is formed of a single petal, divided into five segments, which turn backward. The fruit is a roundish berry. Linnaeus places this among the *pentandria trigynia*.

The Water Elder.

Opulus vulgaris. *Pl. 73. 5*

It is a weak shrub of five feet high.

The branches are numerous, and their bark brown.

The leaves are broad, and of a faint green; irregularly divided into three lobes, and serrated. The flowers are white; and the berries red.

It is common by waters.

C. Bauhine calls it *Sambucus aquatica flore simplicia*.

GENUS XI.

WAYFARING-TREE.

VIBURNUM.

THE flowers are disposed in small umbells. The cup is minute, and divided by five dents at the edge. The flower is formed of a single petal, divided into five obtuse segments; and these turn back. The fruit is a roundish berry, containing a single seed.

Linnaeus places this among the *pentandria trigynia*.

The Wayfaring-Tree.

Viburnum. *Pl. 73. 6*

The tree is of moderate stature, and its bark is brown.

The twigs are whitish and very tough.

The leaves are broad, roundish, and of a

whitish green on the upper side, and white and mealy underneath.

The flowers are white, and the berries, when ripe, are black.

We have it in hedges, principally in our southern counties.

C. Bauhine calls it *Viburnum*.

GENUS XII.

DOGBERRY-TREE.

CORNUS.

THE flowers are placed in small umbells, and have a little cup divided by four indentings at the rim. Each is composed of four small, oblong, and pointed petals. The fruit is an oblong berry, containing a stone with two kernels.

Linnaeus places this among the *tetrandria monogynia*.

The Common Dogberry-Tree.

Cornus femina. *Pl. 73. 7*

This is a shrub of five feet high.

The twigs are tough, and covered with a red bark.

The leaves are oblong, undivided, and of a dusky green.

The flowers are small and white; and the berries, when ripe, are black.

It is common in hedges.

C. Bauhine and others call it *Cornus femina*.

GENUS XIII.

ELDER.

SAMBUCUS.

THE flowers are placed in large umbells. The cup is small, and divided into five parts at the edge. The flower itself is formed of a single petal; and is hollow, and divided into five small segments, which turn backwards. The berry is roundish, and contains three seeds.

Linnaeus places this among the *pentandria trigynia*.

N^o 51.

6 Q

1. Jagged-

1. Jagged-leaved Elder.

Sambucus foliis laciniatis. *Hb. 3. 10*

The shrub grows irregularly to ten or twelve feet high.

The bark is whitish and rough.

The young shoots are thick, green, and tender.

The leaves are placed on divided footstalks; and are themselves also parted into several oblong, jagged, and indented segments.

The flowers are white; and the berries, when ripe, are black.

We have it in hedges, but not common. It flowers in July.

C. Bauhine calls it *Sambucus laciniato folio*.

We have three other species wild in England.

1. The Common Elder, *Sambucus vulgaris*. The berries black.
2. The White-berried Elder, *Sambucus bacis albis*. The berries of a greenish white.
3. The Dwarf Elder, *Ebulus*, *five Sambucus humilis*. A very powerful diuretick.

G E N U S XIV.

S L O E.

P R U N U S.

THE cup is divided into five oblong, hollow segments. The flower is composed of five broad petals. The fruit is roundish, with a longitudinal furrow; and contains under a fleshy substance an oblong stone with a kernel.

Linnaeus places this among the *icofandria monogynia*.

The Common Sloe.

Prunus sylvestris vulgaris. *Hb. 3. 10*

The shrub is rarely more than four feet high. The branches are thorny, and have a deep brown bark.

The leaves are oblong, broad, and of a fine green.

The flowers are white; and the fruit, when ripe, is covered with a grey dust.

It is common in hedges, and flowers in July.

G E N U S XV.

C H E R R Y.

C E R A S U S.

THE cup is hollow, and divided into five segments at the edge. The flower is composed of five broad, hollowed petals. The fruit is roundish, with a furrow; and contains a roundish stone.

1. The Cluster, or Birds Cherry.

Cerasus avium racemosa. *Hb. 3. 10*

This rises to a small tree.

The bark is pale on the trunk, and darker on the branches.

The leaves are oblong and serrated.

The flowers stand in long clusters, and are white.

The fruit is small.

We have it in woods in the north of England.

C. Bauhine calls it *Cerasus racemosa sylvestris*.

We have four other species.

1. The Common, wild, red Cherry, *Cerasus sylvestris fructu rubro*. Much like the Flemish cherry.
2. The black Cherry-tree, *Cerasus sylvestris fructu nigro*. The common, small, black Cherry.
3. Small, wild, Heart Cherry, *Cerasus sylvestris fructu minimo cordiformi*. In Wales.
4. The late wild Cherry, *Cerasus sylvestris septentrionalis fructu parvo serotino*. The fruit round and red.

G E N U S XVI.

S T R A W B E R R Y - T R E E.

A R B U T U S.

THE cup is very small, and is divided by five indentings at the edge. The flower is formed of a single petal; and is hollow, oval, and divided at the rim into five segments, which turn back. The fruit resembles a common strawberry; but the seeds are within, not on the surface.

Common Strawberry-Tree.

Arbutus vulgaris.

It is a small tree; or oftener rises in the shrub form.

The leaves are oblong, and very beautifully serrated.

The flowers are greenish.

The berries, when ripe, are red.

It is wild in our northern counties.

The fruit ripens in November.

C. Bauhine calls it *Arbutus folio serrato*.

G E N U S

G E N U S XVII.

M I S L E T O E.

V I S C U M.

THE flowers are often separately male and female, but not constantly so: they consist of a small cup, divided into four oval parts; with either filaments without a rudiment of the fruit, or with a rudiment without filaments, or both together: in each case the form and structure of the flower is the same. The fruit is a roundish berry, containing a single, flat seed, of a heart-like shape.

Common Mistletoe.

Viscum vulgare.

The shrub is very much branched, and a foot and half high.

The stalks are yellow and tough.

The leaves stand in pairs; and they are oblong, fleshy, yellowish, and obtuse.

The flowers are small and greenish.

The berries are white, and full of a slimy juice.

It is common on apple-trees, and other kinds growing to their branches as moss.

C. Bauhine calls it *Viscum bacis albis*.

It is an excellent medicine against disorders of the nerves. That of the oak is preferred, but it is very rarely found.

G E N U S XVIII.

S P U R G E L A U R E L.

L A U R E O L A.

THE flowers rise naked, three from each bud, and are composed of a single petal, tubular and divided at the edge into four segments. The fruit is a roundish berry with a single seed.

Common Spurge Laurel.

Laureola vulgaris.

It is a low shrub, green all the year.

The bark is brownish.

The leaves are long, and of a fine green, undivided and fleshy.

The flowers are small and greenish.

The berries are black.

We have it on commons.

C. Bauhine calls it *Laureola sempervirens flore viridi*.

It is a violent vomit and purge.

G E N U S XIX.

P R I V E T.

L I G U S T R U M.

THE cup is small, and is divided at the rim into four parts. The flower is formed of a single petal, tubular at the base, and divided also into four segments at the edge. The fruit is a round berry containing four seeds.

Linnaeus places this among the *diandria monogynia*.

Common Privet.

Ligustrum vulgare.

It is a shrub of five feet high.

The stem is slender, brown, and smooth.

The leaves are oblong, and of a dark green.

The flowers are small and white; and they grow in clusters.

The berries are black.

We have it in woods.

C. Bauhine calls it *Ligustrum Germanicum*.

G E N U S XX.

B L A C K E L D E R.

F R A N G U L A.

THE flower has no cup: it is formed of a single petal; and is small, tubular, rough on the outside, but smooth and polished within; and is tinged, and divided into five small segments. There is a scale at the base of each segment; and from under each of these rises a filament. The berry is roundish, and contains two seeds.

The Black Alder.

Frangula vulgaris. *Pl. 73. 11*

The shrub is weak and small.

The stem is covered with a smooth, brown bark.

The leaves are large, dark, and roundish.

The flowers are of a greenish white; and the berries, when ripe, are black.

We have it in woods and thickets.

C. Bauhine calls it *Alnus nigra baccifera*. Others, *Frangula*.

GENUS XXI.

BARBERRY.

BERBERIS.

THE cup is formed of six small, hollow, coloured leaves. The flower is formed of six rounded petals: there are two granules at the base of each petal, the nectaria of the flower. The berry is oblong, and has two seeds.

The Barberry-Bush.

Berberis vulgaris. *Pl. 73. 12*

The shrub is ten feet high, and armed with sharp spines.

The bark is pale and whitish.

The leaves are broad and oblong; of a fresh

green, with a tinge of yellowish, and finely serrated.

The flowers are small and yellowish: the berries red and agreeably tasted.

We have it wild and in gardens.

All authors call it *Berberis*.

GENUS XXII.

HOLLY.

AGRIFOLIUM.

THE cup is small, formed of a single piece, and divided into four segments at the edge. The flower is composed of four roundish petals, cohering at their bases. The fruit is a roundish berry with four seeds.

1. The Holly.

Agrifolium. *Pl. 73. 13*

It is a large shrub.

The bark is whitish on the trunk; but the young shoots are green.

The leaves are oblong, sinuated, irregular at the edges, and prickly.

The flowers are greenish.

The berries are black:

We have it in woods and hedges.

C. Bauhine calls it *Ilex aculeata baccifera folio serrato*.

We have one other species.

2. Yellow-berried Holly, *Agrifolium baccis luteis*. The leaves of a thinner and looser texture.

GENUS XXIII.

BUCKTHORN.

RHAMNUS.

THE flower has no cup: it is formed of a single petal, and is tubular, and lightly divided by four dents at the edges. There are four little scales within: one at each dent. The berry is roundish, and the seeds are flattened.

The Buckthorn Shrub.

Rhamnus vulgaris. *Pl. 73. 14*

It is a shrub of ten feet high.

The bark is brown.

The leaves are broad, indented, and of a fine green.

The flowers are inconsiderable and greenish.

The berries are black.

The shrub is full of sharp thorns.

We have it in hedges.

C. Bauhine calls it *Rhamnus catharticus*.

The juice of the berries is a good purge.

GENUS

GENUS XXIV.

BRAMBLE.

RUBUS.

THE cup is formed of one leaf, divided into five oblong, spreading, permanent segments. The flower is composed of five roundish petals inserted in the cup. The fruit is composed of numerous grains.

The Common Bramble.

Rubus vulgaris. *Pl. 73. 15*

The shrub is weak and trailing.

The branches are beset with sharp thorns.

The leaves stand three on a footstalk; and are oblong, broad, serrated, and sharp-pointed.

The flower is large and flesh-coloured; and the fruit, when ripe, is black.

It is every where in hedges.

C. Bauhine calls it *Rubus vulgaris, seu Rubus fructu nigro*.

We have three other species wild in different parts of England.

1. White berried Bramble, *Rubus vulgaris major fructu albo*. The leaves longer and paler.

2. The Dewberry-Bush, *Rubus minor fructu ceruleo*. The fruit composed of few grains.

3. The wild Raspberry, *Rubus idaeus spinosus fructu rubro*. In woods in the north.

GENUS XXV.

SPINDLETREE.

EUONYMUS.

THE cup is divided into five roundish segments. The flower is composed of four oval petals. The fruit is a square juicy capsule in each of the four cells, containing a single seed.

Spindletree.

Euonymus. *Pl. 73. 16*

It is a small hedge-shrub.

The bark of the trunk is of a pale brown; that on the young shoots green: and these have four reddish brown ridges, which make them appear square.

The leaves are oblong, moderately broad, and of a fine fresh green.

The flowers are very small, and greenish.

The fruit is large, red, and square.

It is common in hedges.

C. Bauhine calls it *Euonymus vulgaris granis rubris*.

GENUS XXVI.

BLADDERNUT.

STAPHYLODENDRON.

THE cup is divided into five coloured segments. The flower is composed of five oblong petals. The fruit is composed of distinct bladders with pointed tops; in each of which are roundish seeds.

The Bladdernut.

Staphylo dendron. *Pl. 73. 17*

The tree rises to no great height.

The leaves are beautifully pinnated; and the pinnae are oblong, serrated, and sharp-pointed.

The flowers are small.

The fruit is large; and the bladders, when ripe, are of a pale greenish colour, tinged with red or brown.

We have it wild in England, but not common.

GENUS XXVII.

ELEM.

UdL M U S.

THE cup is formed of a single leaf, and divided into five segments at the edge: it is rough on the outside, and, for the greatest part, tubular, enlarging upwards: there are no petals. The filaments stand in this cup; and the fruit is flattened, and has a single seed.

The Wych Elm,

Ulmus folio glabro. 1673. 10

The tree grows to a great bigness.
The bark is rough.
The leaves are very broad, of a fine green,
ferrated, and sharp-pointed: and smooth on the
surface.
The flowers are whitish, and the fruit brown.
We have it in hedges.

Authors call it *Ulmus folio glabro*.

We have three other species.

1. The common Elm, *Ulmus vulgaris folio lato scabro*. The leaves short, broad, and rough.
2. The narrow-leaved Elm, *Ulmus minor folio angusto scabro*. A small tree when at full growth.
3. The broad-leaved Elm, called Witch Hazel, *Ulmus folio latissimo scabro*.

G E N U S XXVIII.

THE ASH.

FRAXINUS.

THE cup is formed of a single piece, divided lightly into four parts at the edge; and the flower is composed of four narrow petals. The seed is flat, membranaceous, and covered with a crust.

The Common Ash.

Fraxinus vulgaris. 1673. 19

The tree is large, but irregular in growth.
The bark of the trunk is whitish; that of
the branches grey.

The leaves are long, large, and beautifully pinnated.

The flowers are greenish.

The fruit is of a greenish brown.

It is common in woods and hedges.

C. Bauhine calls it *Fraxinus excelsior*.

G E N U S XXIX.

MAPLE.

ACER.

THE cup is divided into five segments, and coloured. The flower is composed of five oval petals. The seed vessel is winged with a large membrane.
Linnaeus places this among the *ostandria*.

The Common Maple.

Acer vulgare minus. 1673. 20

The shrub is of irregular growth.
The bark is rough, and of a redish brown.
The leaves are broad, short, and deeply divided: their colour is a pale green.
The flowers are of a greenish colour: the seed-vessels are redish when ripe.

It is common in hedges.

C. Bauhine calls it *Acer campatre*.

We have two other species.

1. The great Maple, called the Sycamore, *Acer majus latifolium*.
2. Hairy, red-fruited Maple, *Acer compestre minus fructu villosa rubente*.

G E N U S XXX.

HEATH.

ERICA.

THE cup is composed of four long leaves. The flower is formed of a single petal; and is divided at the rim into four parts. The seed-vessel is roundish and small; the seeds are numerous and minute.

Befom Heath.

Erica folio hirsuto quaterno. 1673. 21

The shrub is low, scarce exceeding a foot in height.

The bark is of a redish brown.

The leaves are small, extremely numerous, and hairy.

The flowers stand in little tufts at the tops of the branches; and are of a faint purple.

We have it on boggy grounds on heaths.

C. Bauhine calls it *Erica ex rubro nigricans scoparia*. Our people, *Dutch heath*.

We have five other species.

1. Common Heath, *Erica vulgaris*. The leaves of a pale green; and the flowers of a faint flesh-colour.
2. Common rough leaved Heath, *Erica vulgaris hirsuta*. More branched than the former.

3. Five-leaved Heath, *Erica tenuifolia*. The bark grey, and the leaves of a dark green.4. Fir-leaved Heath with numerous flowers, *Erica foliis corios multiflora*. The flowers of a pale crimson.5. Myrtle-Heath, *Erica cantabrica flore maxima foliis myrti subtus inanis*. The leaves pointed.

G E N U S XXXI.

MARSH CYSTUS.

LEDUM.

THE cup is small, permanent, coloured, and divided into five segments. The flower is formed of a single petal; and is hollow, and divided into five segments at the rim. The seed-vessel is roundish, with five ridges.

English Marsh Cistus.

Ledum palustre.

It is a small shrub, not much branched.

The leaves are oblong and narrow.

The flowers stand on short footstalks; and are small, and of a beautiful pale red, crowning the tops of the branches.

We have it on boggy grounds in heaths.

C. Bauhine calls it *Viti idea affinis polii folio*.

G E N U S XXXII.

LIME.

TILIA.

THE cup is divided into five segments, and is coloured. The flower is composed of five oval petals. The fruit is a tough, globular capsule, with five seeds in five cells.

Common Lime.

Tilia vulgaris. 1673. 22

The tree is erect, and tolerably regular in growth.

The bark is brown.

The leaves are broad, ferrated, sharp-pointed, and of a fine green.

The flowers are white and fragrant.

We have it wild in the north; and it is planted about houses.

C. Bauhine calls it *Tilia famina folio majore*.

We have three other species.

1. The small-leaved Lime, *Tilia folio minore*. The leaves of a deeper green and finer substance.
2. The red Lime, *Tilia foliis leviter hirsutis viminalibus rubris*. The ridges on the fruit very high.
3. The Elm-leaved Lime, *Tilia ulmi folia fructu hexagono*. The ridges very high and large.

G E N U S XXXIII.

BROOM.

GENISTA.

THE cup is small, and has five slight dents at the edge. The flower is of the papilionaceous kind, and is formed of five petals; the carina having two. The seed-vessel is a cylindrick pod, with large seeds.

1. Common Broom.

Genista vulgaris.

The shrub is four or five feet high.

The bark on the trunk is of a pale brown.

The young shoots are numerous, angulated, and green.

The leaves are small and oblong: they stand three together.

The flowers are large and yellow.

It is common on waste grounds.

C. Bauhine calls it *Genista Anglosa*.

2. Diers Broom.

Genista tinctoria vulgaris. 1673. 23

This is a low, shrubby plant; two feet high, and very much branched.

The leaves stand singly, and are long, narrow, and of a bright green.

The flowers stand in long clusters at the tops of the branches, and are large and yellow.

We have it in dry pastures.

C. Bauhine calls it *Genista tinctoria Germanica*.

GENUS XXXIV.

FURZ.

GENISTA SPINOSA.

THE cup is small, and divided irregularly. The flower is papilionaceous, and has five petals; two forming the carina. The seed-vessel is an oblong pod. The whole shrub is covered with thorns.

Common Furz.

Genista spinosa vulgaris. *Pl. 24.*

The shrub is four or five feet high, and very spreading.

The leaves are very small, oblong, of a bluish green, and fall soon after they appear in spring.

The branches are all the year clothed with innumerable green thorns.

The flowers are large and yellow.

It is common on heaths.

C. Bauhine calls it *Genista spinosa major longioribus aculeis.*

We have two other species.

1. The lesser Furze, *Genista spinosa minor.* The thorns are shorter, and it flowers later.

2. Needle Furze, *Genista minor aspalatoides.* The leaves small and of a faint green.

The END of the THIRTY-THIRD CLASS.



THE BRITISH HERBAL.

CLASS XXXIV.

Plants whose flowers and seeds are minute and singly inconspicuous; and are produced on the back of their leaves.

THESE are a series of plants perfectly distinct from all others; and they have the fortune to be kept together in the modern arrangements of botany. Their parts of fructification are too minute and obscure to have given opportunities to those who favour the present method, to blend them among the other genera.

Linnæus ranges them with the mosses and other such kinds under the term *cryptogamia*.

GENUS I.

HARTS-TONGUE.

PHYLLOITIS.

THE plant consists of an undivided leaf; and the seeds are disposed in long streaks on the back.

1. Common Harts-tongue.

Phyllitis vulgaris. *Pl. 44. 1*

The root is a tuft of black fibres.

The leaves are numerous; and each is a distinct plant.

The footstalk is short, blackish, and downy.

The leaf is very long, hollowed at the base, pointed at the end, and of a fine green.

The lines of seeds are brown.

It is common in wells and other damp, shady places.

There are three varieties of this plant, which have been described as distinct species.

1. The fingered Harts-tongue, *Phyllitis multifida.* In this the leaves are split into several strait segments at the top. 2. Cross-jagged Harts-tongue, *Phyllitis cruciata.* The segments crossing one another. And, 3. Dwarf Harts-tongue, *Phyllitis minima.* Two inches high.

GENUS II.

POLYPODY.

POLYPODIUM.

THE leaf has a naked footstalk, and is divided into long segments. The flowers stand on the back in round spots.

Nº LII.

6 S

1. Common

1. Common Polypody.

Polypodium vulgare. PL 74. 2

The root is long and thick; and creeps just at the surface.

The plant is a foot high.

The footstalk is of a purplish brown. The leaf is of a deep green on the fore-side, and paler behind; and the flowers and seeds are placed there in round spots of a yellowish brown. It is common in woods and under hedges.

C. Bauhine calls it *Polypodium vulgare*.

The root is a gentle purge.

We have three other species.

1. Serrated Polypody, *Polypodium murale pinnulis serratis*. This has been supposed a variety but is really a distinct species.
2. Laciniated Polypody of Wales, *Polypodium Cambr Britanicum pinnulis ad margines lacinatis*.
3. Broad Polypody, *Polypodium iluense*. On the tops of the Welch mountains.

GENUS III.

ROUGH SPLEENWORT.

LONCHITIS ASPERA.

THE leaf is continued in small segments to the base of the footstalk. The leaves that have ripe seeds curl up.

Rough Spleenwort.

Lonchitis aspera vulgaris. PL 74. 3

The root is composed of innumerable fibres.

The leaves are very long, and narrow; and are divided down to the middle rib into fine segments: the colour is a dark green.

The segments are longish in the middle, and smaller to the base of the footstalk, as also to the point.

The seeds are very numerous, and brown; and the leaves on which they are placed curl up. It is common on heaths.

C. Bauhine calls it *Lonchitis aspera minor*.

We have one other species.

1. Rough Spleenwort, with indented segments, *Lonchitis aspera major*. On the Welch mountains.

GENUS IV.

SMOOTH SPLEENWORT.

ASPLENIUM.

THE leaf is simply, and not deeply, divided. The segments are obtuse; and the flowers and seeds cover the back of the leaf in a continued mass.

Common smooth Spleenwort.

Asplenium vulgare. PL 74. 4

The root is a tuft of fibres.

The leaves rise in great clusters; and they are five inches long, narrow, and slightly divided, or sinuated at the edge.

The segments are obtuse, and not exactly opposite to one another.

The fore-side of the leaf is a dark green; the back-side is covered with a brown powder.

We have it on old walls.

C. Bauhine calls it *Ceterach officinarum*.

It is supposed a remedy for obstructions of the spleen.

GENUS V.

DWARF FERN.

CHAMÆFILIX.

THE leaf has a naked footstalk; and is composed of many pairs of distinct pinnæ. The seeds are placed in dots.

Dwarf Sea-Fern.

Chamæ filix maritima. PL 74. 5

The root is a tuft of black fibres.

The leaves are numerous, and three inches long: their stalk is black.

The pinnæ are of a deep green on the fore-side, and pale behind, with the seed in dots.

We have it on old walls at the sea-side.

C. Bauhine calls it *Filicu maritima*.

We have one other species.

1. Dwarf Rock Fern, *Chamæ filix alpina pedicularis rubra foliis*. The segments jagged.

GENUS

GENUS VI.

ENGLISH MAIDENHAIR.

TRICHOMANES.

THE leaf is pinnated; and the pinnæ are rounded, placed regularly, beautiful, and distinct.

English Maidenhair.

Trichomanes vulgare. PL 74. 6

The root is a tuft of fibres.

The leaves are numerous, four inches long, narrow, and beautifully pinnated: their colour is a dark green; and they are glossy.

The stalk is black.

The flowers and seeds are brown.

It is common on damp rocks.

C. Bauhine calls it *Trichomanes fere polytrichum officinarum*.

We have three other species.

1. Branched English Maidenhair, *Trichomanes ramosum*. The rib, or stalk, in this is green.
2. Jagged-leaved English Maidenhair, *Trichomanes foliis eleganter incis.* The pinnæ cut deeply.
3. Moonwort-leaved English Maidenhair, *Adiantum nigrum foliis lunariæ*. The pinnæ rounded.

GENUS VII.

FORKED MAIDENHAIR.

ACROSTICUM.

THE leaves are very small, and have long footstalks: they are divided into forked segments; and the seeds stand in round dots.

Forked Maidenhair.

Acrosticum vulgare. PL 74. 7

The root consists of numerous fibres connected to a small head.

The stalks are three inches high; and at the top each divides into a few flat and forked seg-

ments, forming a kind of leaf: this is of a pale green: the stalk is black at the bottom, pale upwards; and the seed are placed in round dots.

We have it on damp rocks.

C. Bauhine calls it *Filix saxatilis*. Others, *Adiantum furcatum*.

GENUS VIII.

MALE FERN.

FILIX MAS.

THE leaf is pinnated, and the pinnæ are again divided down to the rib into oblong segments. The seeds are placed on the hinder part of the pinnæ in a double series of roundish spots.

1. Common Male Fern.

Filix mas vulgaris. PL 74. 8

The root is thick, irregular, and rough on the surface.

The leaf is two feet long, the rib brown, and the pinnæ of a pale green.

The seeds lie on the back in spots of a yellowish brown.

It is common in woods and under hedges.

C. Bauhine calls it *Filix non ramosa dentata*.

We have eight other species.

2. Prickly, auriculated Male Fern, *Filix mas non ramosa pinnulis latis auriculatis spinosis*.
3. Narrow-leaved prickly Male Fern, *Filix aculeata major pinnulis auriculatis crebrioribus foliis angustioribus*.

4. Dwarf prickly Male Fern, *Filix lonchitidi affinis*. A small plant not five inches high.

5. Broad-leaved prickly Male Fern, *Filix mas aculeata foliis expansis muscosa lanugine aspersis*.

6. Male Fern, with thin set, deeply indented leaves, *Filix mas non ramosa pinnulis angustis raris profunde dentatis*.

7. Creeping Water Fern, *Filix minor palustris repens dryopteris auborum*. The leaf very thin.

8. Pale-stalked Fern, with drooping pinnæ, *Filix minor pediculo pallidioris alis inferioribus deorsum spectantibus*.

9. Male Stone Fern, *Filix pumila saxatilis*. It resembles the *dryopteris*, but is smaller.

GENUS

G E N U S IX.

WHITE MAIDENHAIR.

ADIANTUM ALBUM.

THE leaf has a naked footstalk, and consists of a few broad, thick divisions. The seeds cover the whole under-surface.

1. White Maidenhair.

Adiantum album. *Pl. 74. 9*

The root is a tuft of fibres.
The leaves are numerous, and two inches high.
The stalk is of a pale green; and the leaf is also of a whitish green on the upper-side, and covered with a whitish dust underneath.

It is common on old walls.
C. Bauhine calls it *Ruta muraria*.

We have one other species.

2. Narrow-leaved, tall, White Maidenhair, *Adiantum album elatius pinnulis angustioribus.*

G E N U S X.

TRUE MAIDENHAIR.

CAPILLUS VENERIS.

THE leaf has a long footstalk; and is divided into numerous, broad segments. The seeds are placed in white lines at their edges.

The True Maidenhair.

Capillus veneris verus. *Pl. 74. 10*

The root consists of numerous fibres.
The stalk is black and glossy.
The plant is six inches high.
The pinnæ are of a pale green; and the rows of seeds below are whitish.
We have it in Wales.
C. Bauhine calls it *Adiantum foliis coriandri*.

We have three other species.

1. Tunbridge Maidenhair, *Capillus veneris pusillus foliis bifidis vel trifidis.*
2. Great Maidenhair, *Capillus veneris pediculo pallide rubente.* A plant of a foot high.
3. Green Scottish Maidenhair, *Capillus veneris folio obtuso saturate viridi.*

After these there stands in the *Synopsis Stirpium Britannicarum*, an imaginary plant. A leaf of the white wood anemone.

G E N U S XI.

FEMALE FERN.

FILIX FÆMINA.

THE leaf is composed of very numerous pinnæ, on subdivided footstalks. The seeds are placed in round dots.

1. Common Female Fern:

Filix femina vulgaris. *Pl. 74. 11*

The plant is five feet high.
The stalk is thick and green.
The pinnæ are oblong, and of a pale green; and the seeds are placed on their back in small, round, ferrugineous dots.
It is common on heaths.
C. Bauhine calls it *Filix ramosa major pinnulis obtusis non dentatis.* Others, *Filix femina.*

We have six other species.

2. Great, Branched Fern, with indented leaves,

Filix ramosa pinnulis dentatis. The leaves dark green.

3. Small, branched Mountain Fern, *Filix montana ramosa minor argute denticulata.*
4. Osmund Royal, *Filix ramosa non dentata florida.* The seeds clustered on the tops of the branches.
5. Small, branched, Sea, Stone Fern, *Filicula saxatilis ramosa maritima.* Of a pale green.
6. Dwarf, branched Fern, *Filix ramosa minor.* This is the plant called *dryopteris* by Tragus.
7. Fine cut Stone Fern, with slender, brittle stalks, *Filix saxatilis caule tenui fragili.*

G E N U S

G E N U S XII.

BLACK MAIDENHAIR.

ADIANTUM NIGRUM.

THE leaf has a long footstalk. The pinnæ are subdivided into broad, jagged segments. The seeds are placed in lines.

1. Black Maidenhair.

Adiantum nigrum vulgare. *Pl. 74. 12*

The plant is ten inches high.
The stalk is naked, and of a glossy black.
The pinnæ are broad, of a dark green, and deeply cut.
The seeds stand in rows on the under-side.
It is common in woods.
C. Bauhine calls it *Adiantum foliis longioribus pulverulentis.*

We have six other species.

1. Bastard-hemlock-leaved Maidenhair, *Adiantum nigrum pinnulis cicutarie divisura.* A tender plant.
2. Small, flowering, Black Maidenhair, *Adiantum crispum alpinum.* These two are by some called *white maidenhairs*.

3. Round-leaved Black Maidenhair, *Filix elegans adianto nigro accedens segmentis rotundioribus.*
4. Dwarf Black Maidenhair, *Filix pumila petrea adianti nigri æmula.* Scarce two inches high.
5. Fine cut Black Maidenhair, *Filix minor longifolia pinnulis tenuissimis laciniatis.* In Ireland.
6. Winged Maidenhair, *Adiantum nigrum alato caule.* The leaves glossy and dark green. *Pl. 74. 13*

This is the compleat list of *English ferns* and *capillary plants*.

Many virtues are attributed to them; but experience does not support the account. The common male fern and the osmund royal are celebrated against the rickets; and many have tried them, but unsuccessfully. The Maidenhairs are eminently good against disorders of the breast and lungs.

The END of the THIRTY-FOURTH CLASS.



BRITISH HERBAL.

CLASS XXXV.

Plants whose flowers and seeds are minute and singly inconspicuous, and are not placed on the back of the leaves.

GENUS I.

ADDER'S TONGUE.

OPHIOGLOSSUM.

THE seeds are arranged in a double serrated receptacle, rising on a stalk from the base of the leaf.

Adder's Tongue.

Ophioglossum vulgare. *Pl. 1. 15*

The plant consists of a single leaf and a spike. The leaf is supported on a long, green foot-stalk; and is of an oval form, a fleshy substance, and a pale green.

The spike is green at first, but as it ripens it grows brownish.

It is common in meadows in April.

C. Bauhine calls it *Ophioglossum primum seu vulgatum*.

The spike is sometimes split, or double: in this case it has been supposed a distinct species.

The leaves boiled in lard make an excellent cooling ointment.

GENUS II.

MOONWORT.

LUNARIA.

THE plant consists of a single leaf, and a stalk supporting a cluster of serrated seed-vessels.

Moonwort:

Lunaria racemosa. *Pl. 1. 16*

The root is fibrous.

The plant is eight inches high.

The leaf is beautifully formed of round pinnæ;

and the stalk is terminated by a branched cluster of brown seed-vessels.

We have it in the north of England in dry pastures.

C. Bauhine calls it *Lunaria racemosa minor seu vulgaris*.

GENUS III.

DUCKWEED.

LENTICULA.

THERE are hermaphrodite and female flowers upon the same minute plant: they are formed a-like of a rounded cup, which bursts at the side; and have no petals. In the hermaphrodite flowers the rudiment of the fruit fades; and in the female it ripens into a round seed-vessel, with a point, containing numerous minute seeds.

1. Large

The BRITISH HERBAL.

531

1. Large Duckweed.

Lenticula major. *Pl. 1. 17*

The plant consists of a single leaf, which floats upon the water: it is roundish, but irregularly waved; and of a fine green, tinged in some parts with red.

The fibres are two or three, short and small.

The flowers are extremely minute, and grow principally near the edges of the leaves.

It is common on ponds and ditches.

C. Bauhine calls it *Lenticula palustris major*.

We have two other species.

1. Common Duckweed, *Lenticula vulgaris*. The leaves smaller, all green, and the fibres longer.

2. Three-cornered-leaved Duckweed, *Lenticula aquatica trifolca*. The leaf somewhat of the ivy form.

GENUS IV.

HORSETAIL.

EQUISETUM.

THE flowers and seeds are collected into rounded heads, which are arranged together in an oval spike. The single heads have many ridges, and they split along these when ripe.

1. Great Water Horsetail.

Equisetum palustre majus. *Pl. 1. 19*

The plant is three feet high.

The stalk is hollow, jointed, and of a whitish green.

The leaves stand circularly at the joints; and they are slender, and of a deep green.

The club of flowers is brown.

It is common in marshy places.

C. Bauhine calls it *Equisetum palustre longioribus setis*.

We have eleven other species.

2. Corn Horsetail, *Equisetum arvense longioribus setis*. The base is long, and of a pale green.

3. Naked, painted Horsetail, *Equisetum nudum variegatum*. Early in spring in the north of England.

4. Wood Horsetail, *Equisetum sylvaticum tenuissimis setis*. The base brown, the rest of a fine green. *Pl. 1. 20*

5. Procumbent Wood Horsetail, *Equisetum procumbens sylvaticum setis uno versa dispositis*.

6. Long-leaved Marsh Horsetail, *Equisetum palustre tenuissimis et longissimis setis*.

7. Many-headed Marsh Horsetail, *Equisetum palustre minus polytachion*.

8. Long, pale-leaved Horsetail, *Equisetum pratense longissimis setis*. The whole of a whitish green.

9. Lesser Marsh Horsetail, *Equisetum palustre minus*. The leaves short, and of a deep green.

10. Smooth, naked Horsetail, *Equisetum nudum levius*. The stalks jointed and soft.

11. Rough, naked Horsetail, *Equisetum nudum junceum*. The stalks harsh to the touch.

12. Branched, naked Horsetail, *Equisetum nudum ramosum*. Of a pale green.

GENUS V.

CHARA.

THE flower is extremely minute. It consists only of a cup formed of two little leaves; and is succeeded by a single, oval seed, contained in a thin crust, mimicking a capsule or seed-vessel. The growth of the plant resembles the horsetail, jointed and surrounded at the joints with leaves.

1. Grey, brittle Chara.

Chara cinerea fragilis.

The root is fibrous.

The stalks are numerous, and three inches high.

The leaves are slender, and surround them at the joints, which are placed very close on the upper part of the stalk.

The flowers are inconsiderable.

The whole plant is of a greyish colour, and brittle.

It is common on bogs, and sometimes in ponds.

Ray calls it *Chara major subcinerea fragilis*.

We have four other species.

1. Stinking, brittle Chara, *Chara vulgaris fetida*. Common under water in ditches.

2. Prickly Chara, *Chara major caulibus spinosis*. In boggy places: the stalks twisted and prickly.

3. Tender Chara, *Chara minor caulibus et foliis tenuissimis*. Of a greyish green colour.

4. Pellucid tough Chara, *Chara translucens minor flexilis*. Of a greenish colour, and not brittle.

To these, which, as they have no known virtues, demand in this work no larger notice; yet with which, as they are English vegetables, we would not leave the reader wholly unacquainted, we shall add a short notice of the mosses, mushrooms, and submarine plants. These are subjects which might alone fill volumes of curiosity. We shall not extend this work beyond its destined limits by a large account of them; but in a few words, with the assistance of their figures, give a general idea of their several forms.

MOSSES.

MOSSES.

GENUS I.

BYSSUS.

BYSSUS is a moss composed of downy, dusty, or filamentous matter, without any apparent flowers or seeds.

We have figured the yellow, dusty Byssus, *Byssus pulverulenta flava*. Common on old walls and of long duration. *Pl. 75. 1*

GENUS II.

CONFERTA.

CONFERTA is a moss composed of regular, plain or jointed filaments, without any apparent fructification.

We have figured the Hairy Riverweed, *Conferta vulgaris*. It is of a deep green, and common in brooks. *Pl. 75. 2*

GENUS III.

ULVA.

ULVA is a moss consisting only of thin leaves, without any apparent fructification.

We have figured the Oyster Ulva, *Ulva maritima lactuce similis*. Common on shells and stones under salt water. *Pl. 75. 3*

GENUS IV.

LICHENOIDES.

A Moss of a firm substance, branched, shrubby, hollow, or crustaceous, and having a kind of shield for its fructification. *Pl. 75. 4, 5, 6, 7, 22.*

We have figured five species of this to represent its several forms. 1. Common Tree Lichenoides, *Muscus arboreus cum orbiculis*. Of a greyish green. 2. Branched Coraline Lichenoides, *Lichenoides tubulosum ramosissimum fruticuli specie candicans*. This is white. 3. Common Cup Moss, *Muscus pyxidatus vulgaris*. Of a greyish green. 4. Grey, crusty Lichenoides, *Lichenoides cinereum crustaceum et leprosum*. Of a greyish colour. Of this kind also is the grey, ground liverwort, recommended for the bite of a mad dog; dry and foliaceous. 5. Oak Lungwort, *Lichenoides peltatum arboreum maximum*.

GENUS V.

MNIUM.

A Moss with two kinds of flowery heads, naked, and enclosed in a membrane.

We have figured the Cluster-headed Mnium, *Mnium perangustis et brevibus foliis*. One of the prettiest of the moss kind. *Pl. 75. 5, 6*

GENUS VI.

FONTINALIS.

A Moss with heads placed on very short footstalks, and splitting at the top when ripe.

We have figured the Triangular Fontinalis, *Fontinalis major foliis triangularibus*. Of a fine green. Common near waters. *Pl. 75. 9*

GENUS VII.

HYPNUM.

A Moss with heads covered with membranous hoods, supported on long footstalks rising with a scaly base from the bosoms of the leaves.

We have figured the Small headed Hypnum. Common in woods. *Pl. 75. 10*

GENUS VIII.

POLYTRICHUM.

A Moss with heads covered with woolly caps, and with upright stalks, and long footstalks to the heads, without a scaly base. *Pl. 75. 11*

We have figured the small Polytrichum, *Polytrichum minus*. The leaves a dark green.

GENUS

GENUS IX.

BRYUM.

A Moss with heads covered with smooth caps, rising on slender footstalks from the tops of the branches. *Pl. 75. 12*

We have figured the Round-headed Bryum, *Bryum capitulis tumidis rotundioribus*. Of a pale green.

GENUS X.

SPHAGNUM.

A Moss with naked heads on short footstalks.

We have figured the great, Marsh Sphagnum, *Sphagnum caulescens et ramosum palustre molle*. *A* whitish moss, with red tops. *Pl. 75. 13*

GENUS XI.

SELAGO.

A Moss with seeds inclosed in a skinny case placed in the bosoms of the leaves, without footstalks.

We have figured the Upright Selago, *Selago erecta abietiformis*. Of a fine deep green. *Pl. 75. 14*

GENUS XII.

LYCOPODIUM.

A Moss with seeds in thin cases disposed in a kind of clubs, with small leaves intermixed.

We have figured the Common Lycopodium, *Muscus terrestris clavatus*. Of a yellowish green. *Pl. 75. 15*

GENUS XIII.

LICHENASTRUM.

A Moss with small heads, placed naked on slender footstalks, which, when ripe, burst into four parts. *Pl. 75. 16*

We have figured the small, scaly Lichenastrum, *Lichenastrum imbricatum minus*. Of a pale green.

GENUS XIV.

LICHEN.

A Foliaceous moss, with male flowers, small and numerous, on long footstalks; and female flowers hollow on the surface of the leaves. *Pl. 75. 17*

We have figured the broad-leaved Lichen, *Lichen foliis latioribus*. Of a fine green.

MUSHROOM.

FUNGUS.

A Vegetable without leaves; of a fleshy substance, with imperceptible fructifications.

Of these we have figured four kinds. 1. The Hemispherick Mushroom, *Fungus parvus hemisphericus*. White above and below. 2. The Common Mushroom, *Fungus esculentus vulgaris*. White above, and flesh-coloured below. 3. The Reticulated Mushroom, *Fungus reticulatus coccineus*. The bottom purple, the reticulated part scarlet, spotted with purple. 4. The Phalloide Mushroom, *Fungus phalloides*. White and stinking. *Pl. 75. 18, 19, 20, 21.*

SUBMARINE PLANTS.

VEGETABLES growing under sea-water, with minute and uncertain fructifications.

We have figured one species of each of the four principal kinds. 1. Common Coraline, *Coralina Anglica*. Of a whitish colour, tinged with green and purple; and of a firm substance. Celebrated for the cure of worms. 2. Common Sea Fucus, *Fucus maritimus vulgarissimus*. Of a fine purplish brown. 3. Sea, Ragged Staff, *Fucus spongiosus nodosus*. Of a tender substance, and whitish. 4. Grassy Alga, *Alga vulgaris*. Of a faint green. This is the only submarine which has a regular root. The rest adhere to the stones, by a broad, naked base.

The END of the THIRTY-FIFTH CLASS.

I N D E X.

A	Bies	page 500	Auricula	page 98	Calamint	page 368	Conserva	page 532
Abrotanum	403	Abrotanum	403	Calla	337	Convallaria	322	
Abundant	402	Abundant	402	Caltha	34	Convolvulus	57	
Acanthus	59	Acanthus	59	Caltrop	211	Conyza	447	
Acer	522	Acer	522	Campanula	230	Corchorus	215	
Acetosa	485	Acetosa	485	Campion	70	Coriander	417	
Acinos	362	Acinos	362	Cannabis	164	Coriandrum	417	
Aconitum	45	Aconitum	45	Candy Carrot	483	Corn marigold	450	
Aconitum hyemale	47	Aconitum hyemale	47	Cannacorus	109	Coronopus	517	
Acorus	507	Acorus	507	Caprifolium	425	Corylus	153	
Acrofitum	526	Acrofitum	526	Cardamine	516	Corrigiola	493	
Adder's-tongue	530	Adder's-tongue	530	Cardamine	104	Cortusa	97	
Adiantum album	528	Adiantum album	528	Cardamine	410	Corylus	508	
Adiantum nigrum	529	Adiantum nigrum	529	Cardamine	246	Cotyledon	51	
Adonis	13	Adonis	13	Cardamine	364	Cow-wheat	123	
Agrifolium	520	Agrifolium	520	Cardamine	428	Cowslip	68	
Agrimony	344	Agrimony	344	Cardamine	448	Cracca	285	
Aizoon	53	Aizoon	53	Cardamine	431	Crambe	257	
Alcea	27	Alcea	27	Carrot	414	Crane's-bill	125	
Alchimilla	492	Alchimilla	492	Carum	410	Cristogonon	125	
Alder	519	Alder	519	Caterpillar	313	Cress	267	
Alder, black	406	Alder, black	406	Caryophyllata	8	Cress, scitica	265	
Alga	533	Alga	533	Cassia	162	Critium	413	
Alkanet	393	Alkanet	393	Cassia	509	Crociwort	395	
Alkekengi	335	Alkekengi	335	Cattmint	260	Crowfoot	15	
Alibea	397	Alibea	397	Cat's-tail	33	Crowfoot, globe	33	
Alliaria	235	Alliaria	235	Caulis	415	Cuckow-pint	320	
Allium	497	Allium	497	Celandine	145	Cudweed	210	
Alliweed	227	Alliweed	227	Celandine	474	Cudweed	453	
Alnus	510	Alnus	510	Centaury	62	Cumin	422	
Alfine	179	Alfine	179	Centaury, great	434	Cumin, podded	515	
Alfinella	226	Alfinella	226	Cerastium	183	Cuscuta	89	
Althaea	26	Althaea	26	Cerastium	518	Cyanus	433	
Alyfium	274	Alyfium	274	Cerinth	394	Cyclamen	107	
Amaracus	381	Amaracus	381	Ceterach	526	Cymbalaria	115	
Ammanium	230	Ammanium	230	Cherophyllum	403	Cymine	485	
Ammi	425	Ammi	425	Chamaedrys	380	Cynocrambe	380	
Anagallis	67	Anagallis	67	Chamaedrys	526	Cynoglossum	380	
Anblatum	128	Anblatum	128	Chamaemelum	459	Cyperus	504	
Anchusa	393	Anchusa	393	Chamaemelum	459			
Androsace	99	Androsace	99	Chamaemelum	459			
Androsace	175	Androsace	175	Chamaemelum	459			
Anemone	12	Anemone	12	Chamaemelum	459			
Anemone	421	Anemone	421	Chamaemelum	459			
Angelica	405	Angelica	405	Chamaemelum	459			
Angelica, berry-bearing	333	Angelica, berry-bearing	333	Chamaemelum	459			
Anise	424	Anise	424	Chamaemelum	459			
Anisum	424	Anisum	424	Chamaemelum	459			
Anonis	310	Anonis	310	Chamaemelum	459			
Anthyllis	290	Anthyllis	290	Chamaemelum	459			
Antirrhinum	111	Antirrhinum	111	Chamaemelum	459			
Aparine	398	Aparine	398	Chamaemelum	459			
Aphaca	282	Aphaca	282	Chamaemelum	459			
Apium	411	Apium	411	Chamaemelum	459			
Apple	514	Apple	514	Chamaemelum	459			
Aponogeton	479	Aponogeton	479	Chamaemelum	459			
Aquilegia	41	Aquilegia	41	Chamaemelum	459			
Arabis	253	Arabis	253	Chamaemelum	459			
Arabis	333	Arabis	333	Chamaemelum	459			
Arbutus	518	Arbutus	518	Chamaemelum	459			
Argemone	12	Argemone	12	Chamaemelum	459			
Argentina	6	Argentina	6	Chamaemelum	459			
Arifurum	336	Arifurum	336	Chamaemelum	459			
Arilochia	129	Arilochia	129	Chamaemelum	459			
Arrowhead	2	Arrowhead	2	Chamaemelum	459			
Artemisia	486	Artemisia	486	Chamaemelum	459			
Artemisia	469	Artemisia	469	Chamaemelum	459			
Arum	320	Arum	320	Chamaemelum	459			
Asarabacca	492	Asarabacca	492	Chamaemelum	459			
Afcyrum	174	Afcyrum	174	Chamaemelum	459			
Ath	522	Ath	522	Chamaemelum	459			
Asperugo	380	Asperugo	380	Chamaemelum	459			
Asperula	398	Asperula	398	Chamaemelum	459			
After	448	After	448	Chamaemelum	459			
Afrantia	426	Afrantia	426	Chamaemelum	459			
Atragene	29	Atragene	29	Chamaemelum	459			
Atriplex	489	Atriplex	489	Chamaemelum	459			
Afarum	492	Afarum	492	Chamaemelum	459			
Afaragus	325	Afaragus	325	Chamaemelum	459			
Avena	495	Avena	495	Chamaemelum	459			
Avens	495	Avens	495	Chamaemelum	459			

Empetrum

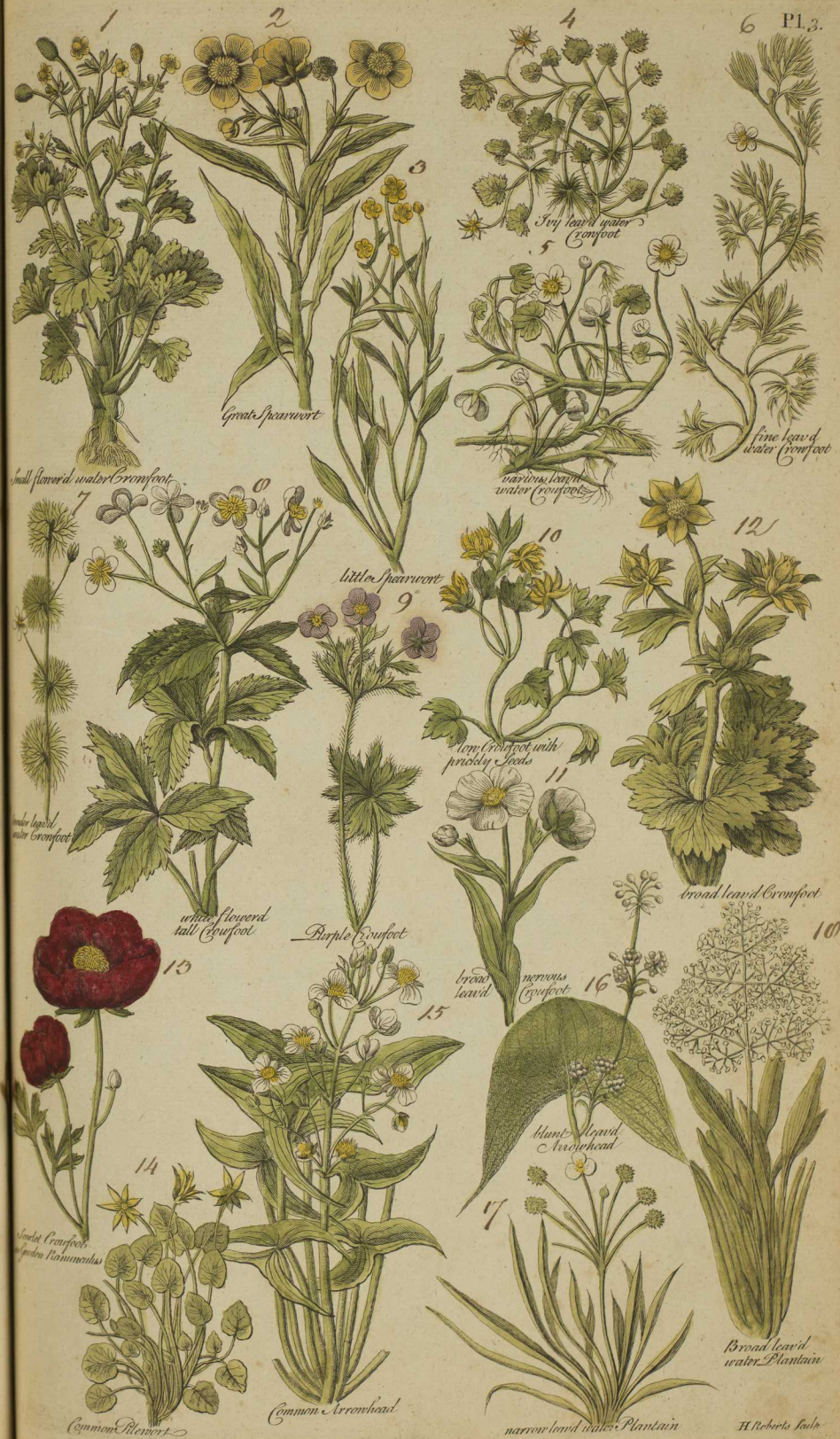
I N D E X.

Empetrum	page 511	Hart's-tongue	page 425	Laureola	page 510	Mint	page 351
Endivia	445	Hatchewtch	294	Laurus Alexandrina	387	Millettoe	519
Epilobium	140	Hazle	508	Leadwort	102	Mitella	210
Epimedium	228	Hawkweed	438	Ledum	212	Molucca	382
Equisetum	531	Heart's-ease	224	Ledum	523	Moneywort	65
Erica	522	Heath	522	Lens	297	Monk's hood	45
Erigeron	451	Hedera	516	Lentibularia	125	Monophyllum	322
Eruca	236	Hedera terrestris	369	Lenticula	530	Moonywort	520
Ervum	209	Hedge mustard	250	Lentill	297	Mofchatell	330
Eryngium	405	Hedge nettle	359	Leontopetalon	219	Mofies	524
Eryngo	419	Hedysarum	294	Leopard's-bane	29	Mothmullein	532
Erythronium	521	Helenium	449	Lepidium	261	Motherwort	364
Eunonymus	452	Hellebore	393	Lettuce	435	Moufe ear	440
Eupatorium	521	Hellebore, black	32	Lettuce, lamb's	342	Moufe-eare fcorpion grafs	390
Euphorbium	157	Helleborine	477	Leucanthemum	459	Mouftail	14
Euphrasia	122	Helleborus niger	32	Leucocium	233	Meium	530
Eyebright	122	Hemlock	411	Leviticum	410	Milwedde	48
		Hemlock, water	412	Libanotis	420	Mugwort	403
F		Hemp	483	Lichen	531	Mullein	87
Faba Egypt.	286	Hemp agrimony	461	Lichenastrum	533	Mufci	533
Fagopyrum	486	Henbane	55	Lichenoides	532	Mufhrooms	533
Fagus	509	Heptaica	28	Ligustrum	519	Muftard	241
Fennel	413	Herb Chriftopher	320	Lilly, water	223	Myoftrum	264
Fennel, hog's	402	Herniaria	493	Lilly of the valley	322	Myofotis	390
Fern, female	528	Herperis	235	Lime	523	Myrhis	404
Fern, male	526	Hieracium	478	Limnopus	481		
Ferula	421	Hippocrepis	201	Limonium	343	N	
Ferrum equinum	391	Hoarhound	361	Linaria	108	Narciffus	468
Feverfew	460	Hoarhound, bafe	369	Linnaea	76	Naturlitium	267
Figwort	114	Hoarhound, flinking	355	Linum	193	Navelwort	51
Filipendula	24	Hoarhound, water	355	Lionleaf	219	Navelwort	99
Filix femina	527	Holly	520	Liquorice	287	Navev	240
Filix mas	526	Holly, fea	419	Lithospermum	390	Nettle	484
Fir	509	Hollyhock	26	Lonchitis	526	Nepeta	360
Flax	193	Honeywort	394	Looftrife	64	Nicotiana	95
Flacane	447	Honeysuckle	431	Lotus	314	Nigella	213
Flawort	159	Honeysuckle, dwarf	204	Lotus	224	Nighthade	326
Flowering Reed	105	Honeysuckle, French	482	Lovage	423	Nighthade, deadly	328
Fluellin	113	Hop	495	Lucerne	312	Nighthade, Ench.	138
Forniculum	413	Horidium	495	Ludwigia	229	Nighthade, fleepy	335
Forniculum	309	Hornbeam	358	Lunaria	530	Nipplewort	441
Forniculum	532	Hornbeam	513	Lunaria	258	Nifolia	280
Forniculum	116	Horferadith	200	Lupine	295	Nummularia	65
Fragaria	126	Horsetail	531	Lupinus	205	Nux	508
Fraxinella	44	Horsetail	531	Lupulus	482	Nymphaea	22
Fraxinus	522	Hound's-tongue	386	Luteola	207	Nymphoides	73
Fraxinus	139	Hound's-tongue	40	Lychnidea	103		
Fryar's cowle	336	Hound's-tongue	40	Lychnis	104	O	
Fucus	533	Hyacinth	469	Lycopodium	533	Ak	509
Fumarica	347	Hydrocharis	139	Lycopus	388	Oat	495
Fumitory	553	Hydrocotyle	419	Lycopus	355	Ochrus	297
Furz	524	Hyocyamus	55	Lyfimachia	64	Ocyum	382
		Hyocyamus	449			Cenante	407
G		Hypericum	228	M		Oldenlandia	229
Ale	510	Hypericum	173	Ad-apple	327	One blade	222
Galega	298	Hypnum	532	Madder	306	Onobrychis	293
Galeopsis	539	Hypnum	532	Madowort, German	389	Ononis	310
Gallium	397	Hippoglossum	437	Maidenhair, black	520	Ophioglossum	517
Garlick	427	Hypopitys	222	Maidenhair, Englith	526	Ophrys	478
Genista	523	Hylofop	377	Maidenhair, forked	527	Opulus	517
Genista pinofa	524	Hylofop, hedge	118	Maidenhair, true	527	Orach	489
Gentian	60			Maiden hair, white	526	Orchis	474
Gentiana	450	I		Mallow	24	Origanum	357
Geranium	195	Jacea	439	Mallow, Indian	49	Orthothalum	409
Gerardia	131	Jacobaea	450	Malva	54	Orthopodium	202
Gerardia	380	Iberia	450	Malus	21	Orobancha	126
Gerardia, water	372	Impatiens	207	Mandragora	334	Orobis	288
Gerardia, tree	380	Imperatoria	423	Mandrake	522	Orpine	36
Geum	191	Iris	472	Maple	381	Oxycoccus	324
Gingidium	425	Itatis	354	Marjoram, fweet	357	Oxeye	69
Gink	213	Julyflower	162	Marjoram, wild	357	Oxlip	527
Gladole, water	126	Juncus	505	Marrubium	303	Oxys	80
Gladole, lacustris	126	Juniper	511	Marth ciftus	212		
Glabium	482	Juniperus	511	Marthmallo	26	P	
Glabium	144	Ivy	516	Maram	378	Peonia	47
Glabium	78	K		Marygold, marth	34	Panax	420
Glabium	292	Kidney bean	296	Mastwort	433	Papaver	141
Glabium	33	Kidneywort	191	Mafferwort, black	426	Paralyfis	68
Glabium	287	Knawped	433	Maris apple	469	Parietaria	491
Glabium	453	Knawel	497	Meadow-rue	345	Paris	323
Glabium	442	Knotgrafs	487	Meadow-fweet	23	Parnafia	192
Glabium	298	L		Medeola	327	Paronychia	259
Glabium	449	Alucaa	435	Medica	210	Parley	424
Glabium	192	Ladies bedftraw	327	Melampyrum	123	Parley, balfard	415
Glabium	496	Lady's mantle	492	Meliffophyllum	367	Parley, rock	414
Glabium	192	Lady's flippers	478	Melilot	308	Parley, cow	400
Glabium	496	Ladyfmock	246	Meliffa	383	Parley, water	400
Glabium	118	Lagopus	306	Meliffa	383	Parleyflower	10
Glabium	390	Lamium	365	Melongena	327	Pattinacha	401
Glabium	484	Lamplana	343	Meniantes	77	Pea	278
Glabium	360	Lappathum	484	Mentha	351	Pear	514
Glabium	451	Lapathum	484	Mercurialis	485	Pearwort	226
Glabium	104	Lark's-fpur	422	Mercury, dog's	483	Pellitory	119
H		Laserpitium	422	Mercury, French	483	Pellitory of the wall	401
Hare's ear	418	Laserwort	422	Mefpulus	415	Pellitory umbellif.	425
Hare's-foot	306	Lathyrus	279	Meum	404	Pennyroyal	554
Harmala	212	Lavender, fea	343	Millefolium	458	Pennywort	30
		Lavender	374	Milfoil, hooded	125	Pennywort, marth	419
		Lavendula	374	Milwort	81	Pentaphides	4

Pentstemon	392	Rocket	236	Silverweed	page 6	Toadflax, ballard	page 344
Pentstemon	392	Rocket, bafe	209	Sinapi	241	Tobacco	95
Pepper-grafs	481	Roella	104	Sinapium	235	Toothwort	252
Periwinkle	52	Rosella	187	Sisymbrium	245	Tordylium	402
Pervinca	52	Rofa	515	Sium	408	Tormentill	7
Pericaria	483	Rofe	272	Skirret	424	Tormentilla	7
Petalites	452	Rofe of Jericho	376	Sloe	518	Tournefortia	394
Petroleumum	424	Rofemary	376	Smallage	411	Tower mullard	249
Peucedanum	402	Ros marinus	187	Smilax	332	Trachelium	74
Phalangium	473	Ros folis	396	Smyrnum	406	Trago oiganum	378
Phaeolus	296	Rubra	306	Snadragon	115	Tragopogon	442
Phaeolus eye	13	Rubia	39	Snail	313	Trefol	302
Phellandrium	412	Rubia cynanchia	39	Sneeze wort	457	Trefol bird's-foot	314
Phyllitis	525	Rue	156	Soldanella	326	Tribulus aq.	307
Pilewort	20	Rue, wild	212	Soldier	100	Trichomanes	236
Pilofella	441	Ruellia	135	Solomon's feal	320	Trifolium	302
Pilularia	481	Rapturewort	493	Sonchus	437	Trifolium lup.	307
Pimpernell	67	Rufcus	330	Sorbus	513	Triglochia	505
Pimpinella faxifraga	400	Ruh	595	Sorrel	485	Triticum	494
Pinguicula	107	Ruth, flowering	85	Southernwood	403	Trollius	31
Pink	162	Rye	495	Sowbread	191	Truelove	323
Piony	47	S. Aff-flower	431	Southwitle	437	Trumpetflower	412
Pifum	278	Saffron	470	Spanifh toothpick	425	Turnep	210
Plantaginella	84	Saffron, meadow	470	Sparganium	506	Turnfole	393
Plantago	152	Sage	373	Speculum	75	Turritis	249
Plantago aquat.	22	Sage, wood	372	Speedwell	90	Tuffelago	448
Plantain, flarry	35	Sage of Jerufalem	385	Sphagnum	533	Twyblade	508
Plantain, water	22	Sagitt	21	Sphondylium	400	Typha	U.
Plumbago	102	Saint John's wort	173	Spindle	521	U.	339
Pneumonanthe	60	Sallad, corn	342	Spignell	404	Valerian	339
Podagraria	405	Salicaria	218	Spergula	184	Valerian, Greek	79
Podophyllum	331	Salicornia	482	Splenwort	526	Valerianella	242
Polimonium	79	Salix	512	Spurge	148	Venus Glafs	75
Polygala	487	Salix	512	Spurge laurel	519	Verbasum	87
Polygonum	379	Saltwort	78	Spurrey	218	Verbena	356
Polymountain	379	Salvia	373	Squinaancywort	399	Verbefina	461
Polium	379	Sambucus	517	Stachys	361	Veronica	90
Polygonatum	320	Samolus	66	Stachas	375	Vervain	350
Polypodium	525	Sampire	413	Staphis agria	44	Vetch	283
Polypody	532	Sampire, prickly	417	Staphylodendrum	521	Vetchgrafs	289
Polytrichum	488	Sanguiforba	346	Stavelacre	44	Vetch, kidney	299
Pondweed	488	Sanicle	419	Star of Bethlehem	469	Vetch, wood	218
Poplar	141	Sanicle, mountain	97	Starwort	199	Vicia	283
Populus	512	Saracena	216	Scarwort	448	Viola	203
Portula	218	Saxifraga	189	Stace	345	Violet	203
Portulaca	218	Saxifraga aurea	497	Stellaria	130	Violet, dame's	235
Portulacogiton	488	Saxifraga	189	Stonecrop	31	Virga aurea	419
Purflain	214	Saxifraga, golden	491	Stramonium	96	Vitum	519
Primofe	68	Saxifraga, meadow	412	Stratotes	140	Vitis idaea	510
Primula	68	Satureia	377	Strawberry	2	Ulmaria	23
Privet	519	Savory	377	Strawberry-tree	518	Ulmus	521
Prunella	362	Saw-wort	431	Submarine plants	533	Urtica	532
Prunus	518	Scabiosa	454	Subularia	273	Urtica	484
Psyllium	159	Scabious	464	Succia	464	W.	333
Psarmacia	457	Scammony	58	Sundew	187	W.	508
Pulegium	354	Scandix	403	Sunflower	170	Walnut	245
Pulmonaria	385	Scirpus	595	Sweetbeard	49	Watercrefs	78
Pullatilla	110	Sclarea	857	Sweet gale	162	Waterlilly, fringed	265
Purflain, water	218	Scleranthus	49	Sweetwilliam	391	Water radifh	78
Pyrethrum umbell	85	Scordium	372	Symphytum	319	Water violet	517
Pyrola	514	Scorodonia	372	T.	319	Wayfaring tree	494
Pyrus	509	Scorpioides	444	T.	461	Wheat	210
Q		Scorzonera	114	Tanacetum	481	Whitlowgrafs	510
Quercus		Scrophularia	260	Tanze	283	Whortle	344
R		Scurvygrafs	410	Taxus	512	Whortle, marfh	512
Radiola	265	Secale	495	Taxif	464	Willow	146
Radiol	227	Securidaca	299	Telephium	36	Willowherb	218
Ragwort	243	Sedum	37	Teucrnum	380	Willowherb, fpiked	12
Rampion	450	Selago	333	Thalictrum	346	Winter cherry	335
Ranunculus	71	Selfheal	362	Thapfia	421	Wintergreen	35
Ranunculus	15	Selinum	414	Thelium	344	Woad	254
Raphanistrum	244	Sempervivum	40	Thistle	428	Wolfsbane, winter	47
Raphanus	243	Senecio	451	Thistle, gentle	427	Woodrufic	398
Raphanus ruft.	208	Sengreen	53	Thlafpi	269	Woodforrel	80
Rapum	240	Ser-mountain	423	Thora	29	Wormwood	462
Rapunculus	71	Serpyllum	349	Thorn-apple	20	X.	484
Rattle, red	119	Serratula	431	Thrift	345	Xanthium	
Rattle, yellow	121	Service	514	Throatwort	74	Y.	
Refeda	209	Sefamum	134	Thyme	361	Yarrow	458
Reftharrow	310	Sefeli	412	Thyme, mother of	349	Yew	512
Rhamnoides	512	Shepherd's reedle	423	Thymus	354	Z.	
Rhamnus	520	Shepherd's purfe	260	Tilia	523	Z.	
Rhinanthus	121	Sideritis	390	Tithymalus	148	Z.	
Ribes	515	Siler montanum	423	Toadflax	108	Z.	479





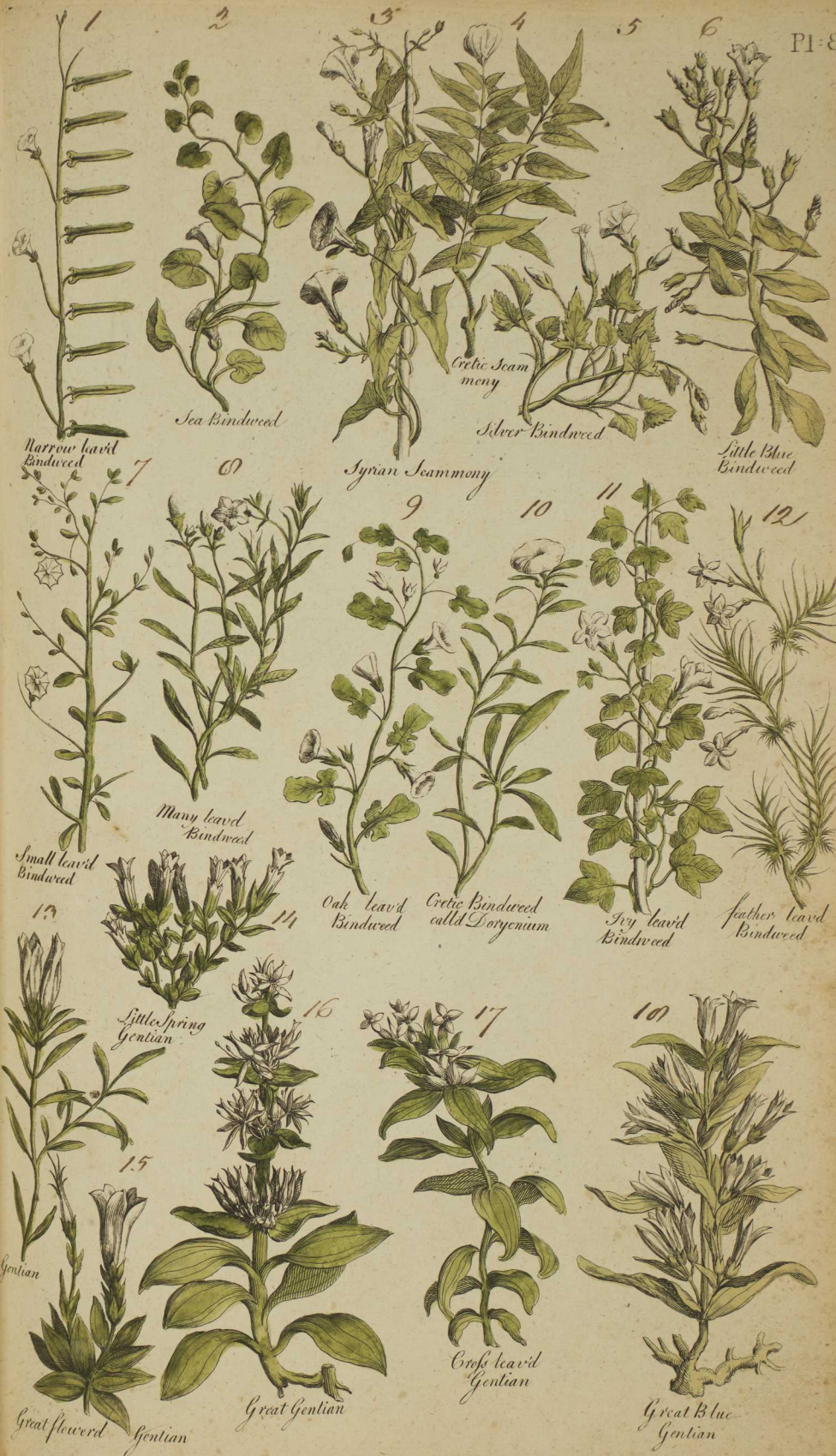




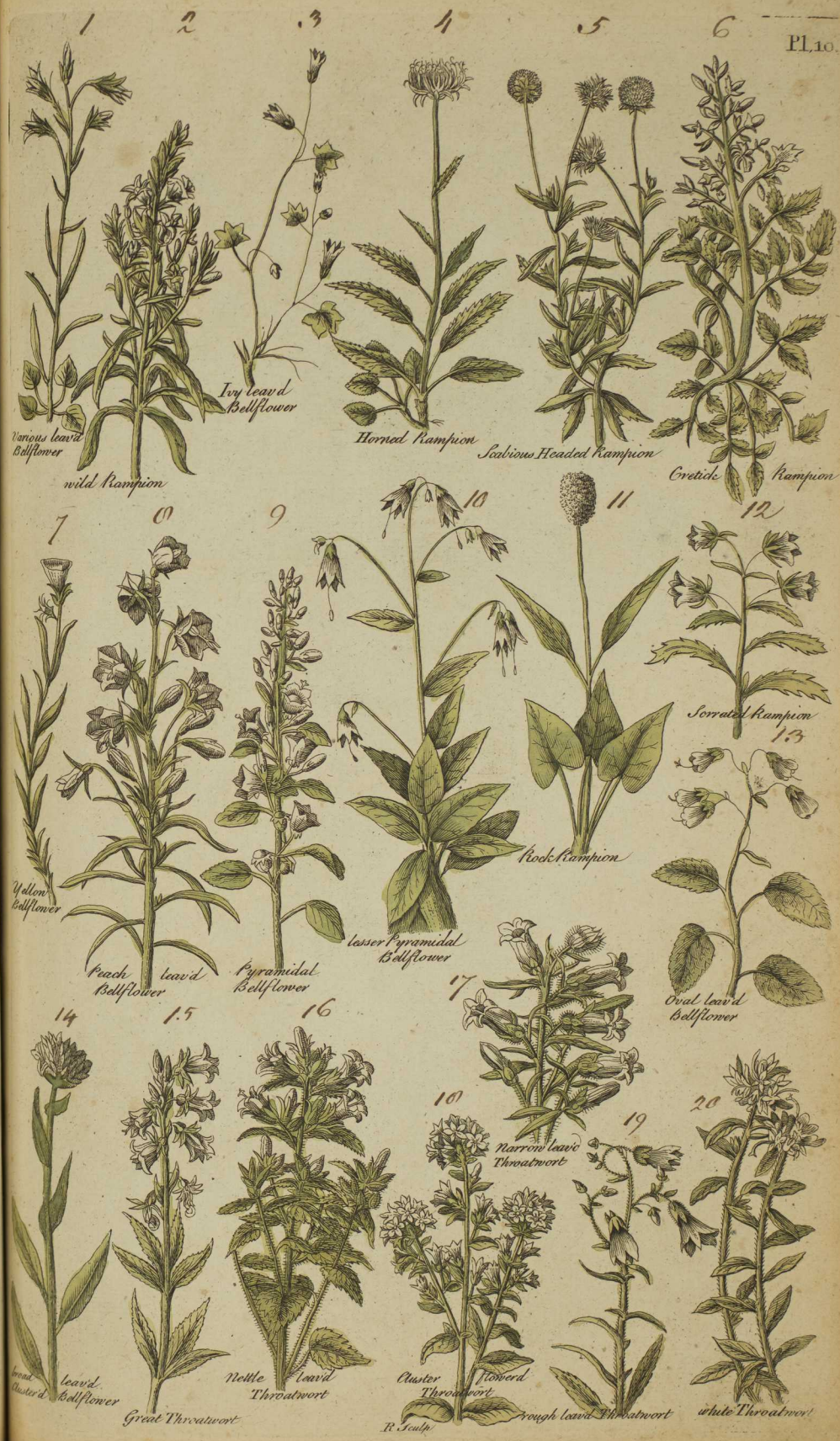




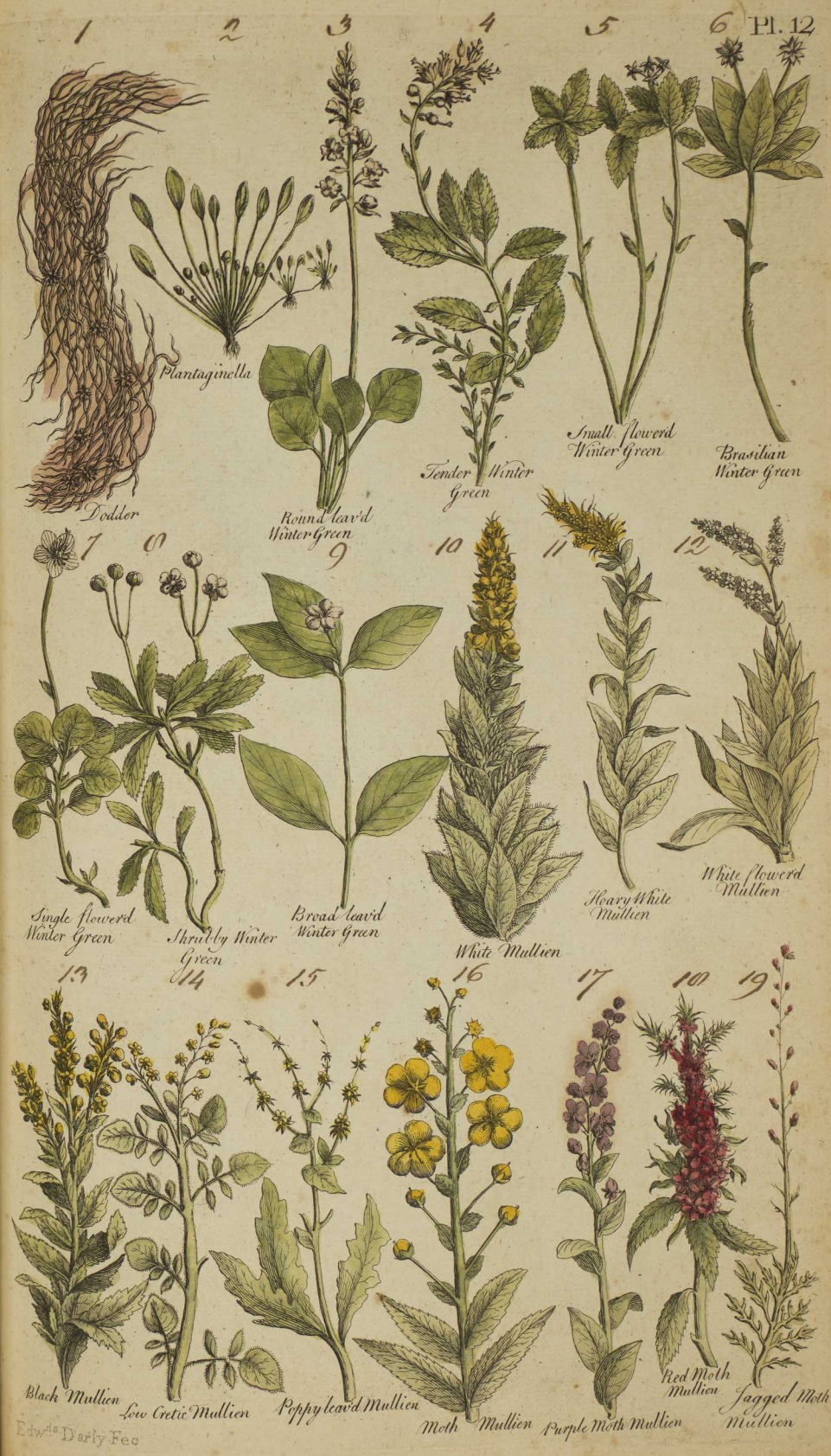








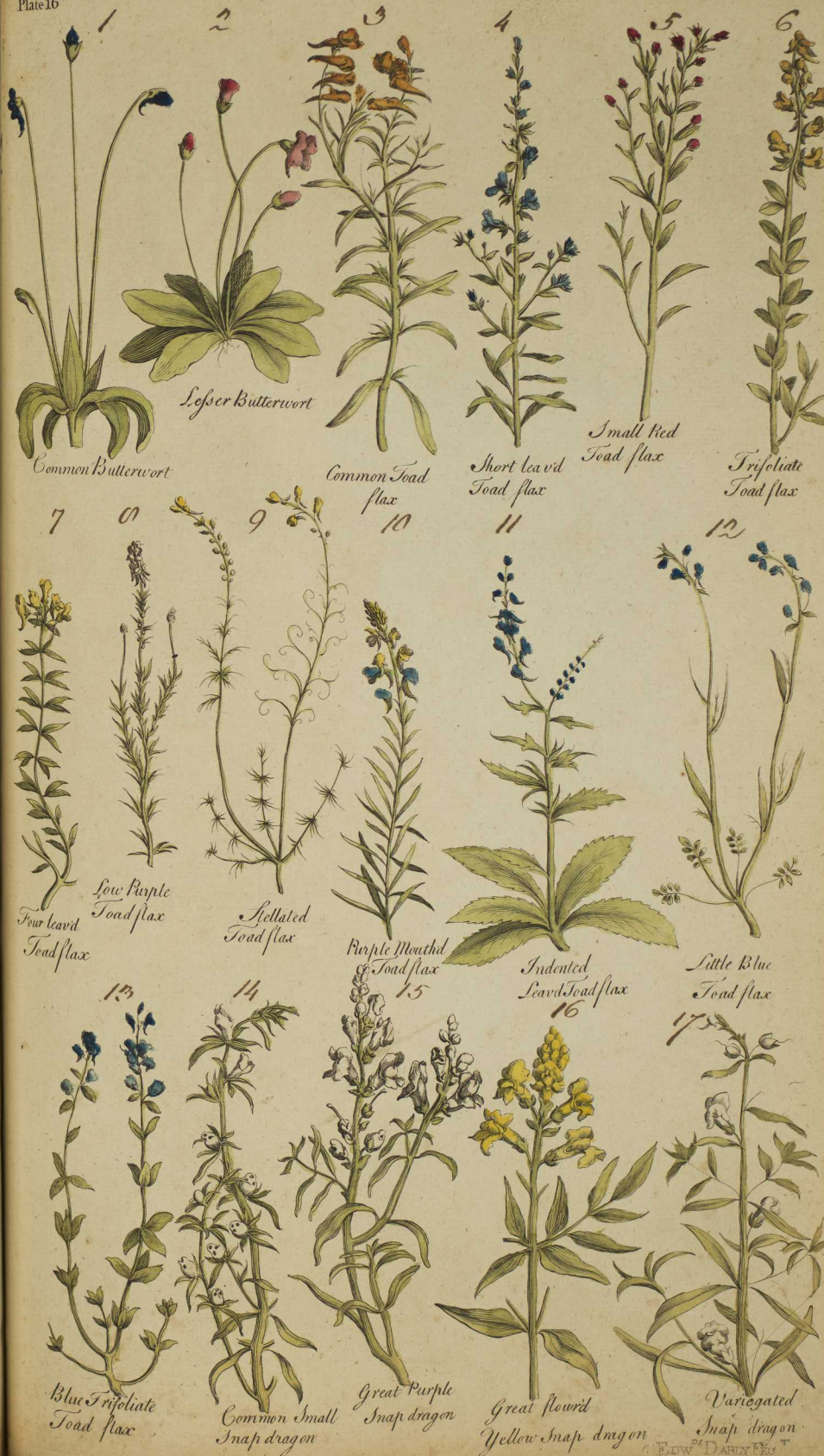


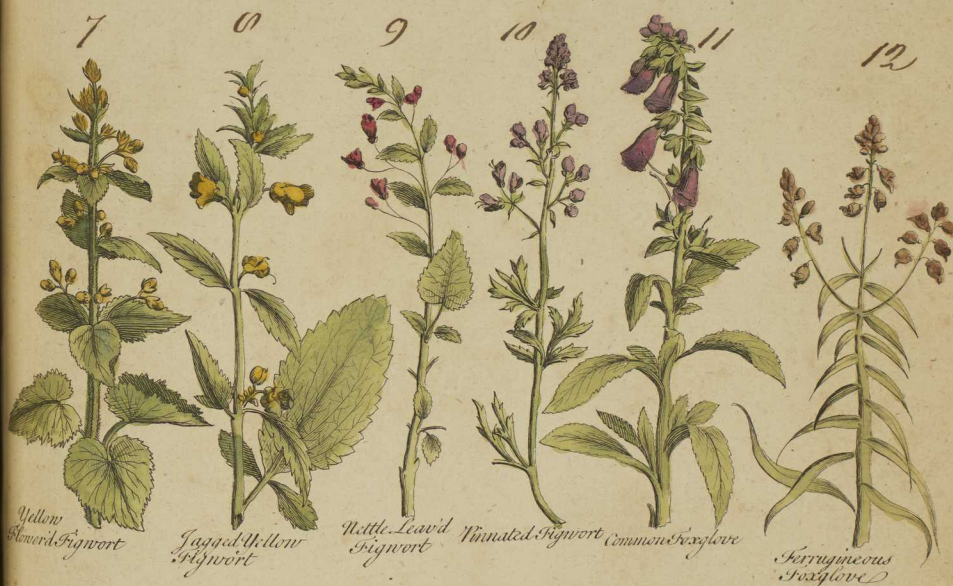




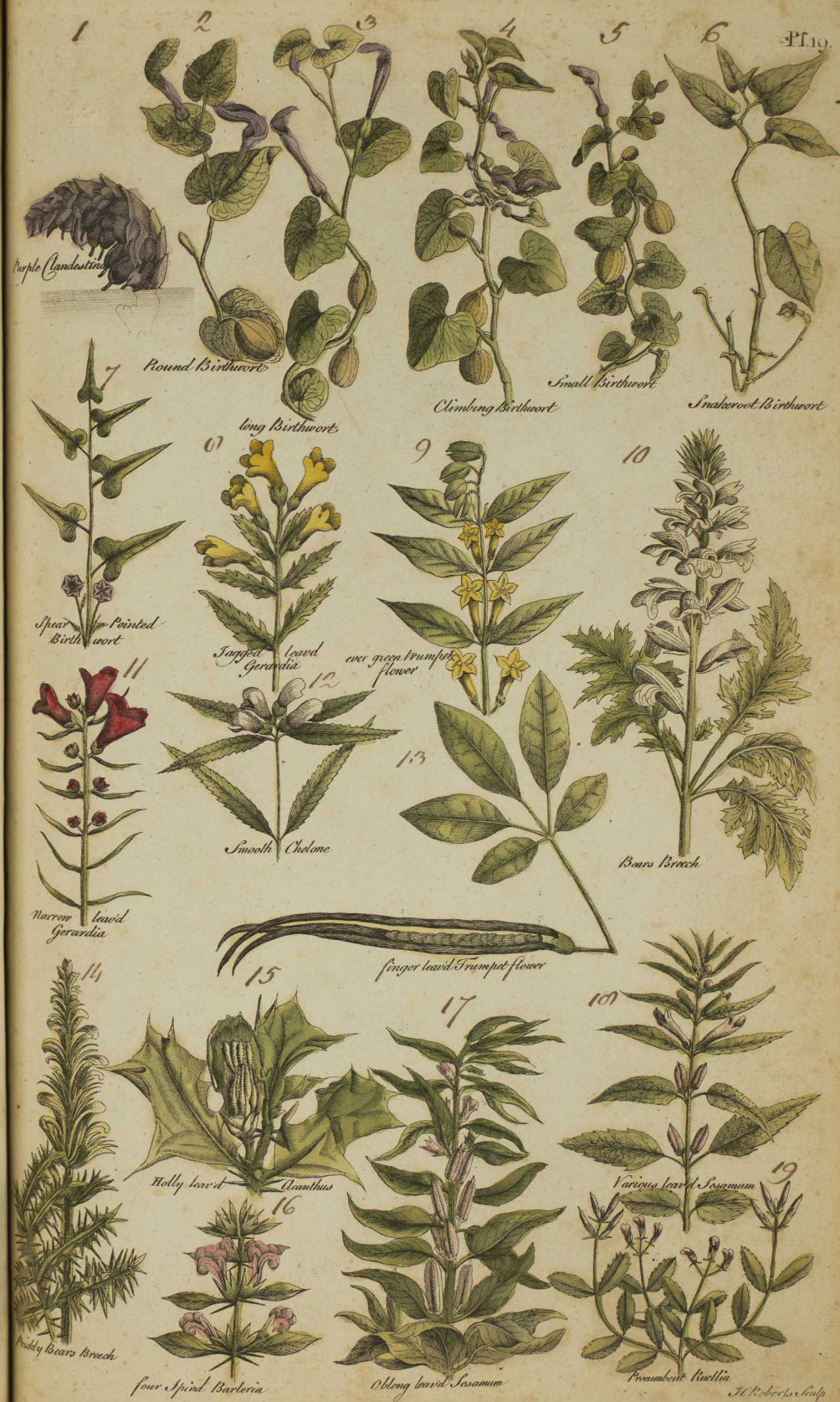
















Common great Celandine



Jagged Celandine



Rose bay Willow herb



Broad leaved hairy Willow herb



Small flower'd hairy Willow herb



Great smooth Willow herb



Narrow leaved smooth Willow herb



Little smooth Willow herb



Wood Spurge



Rough fruited Spurge



Sea Spurge



Small long leaved Spurge



Little Sea Spurge



Dwarf Spurge



Sun Spurge



Little roundish leaved Spurge

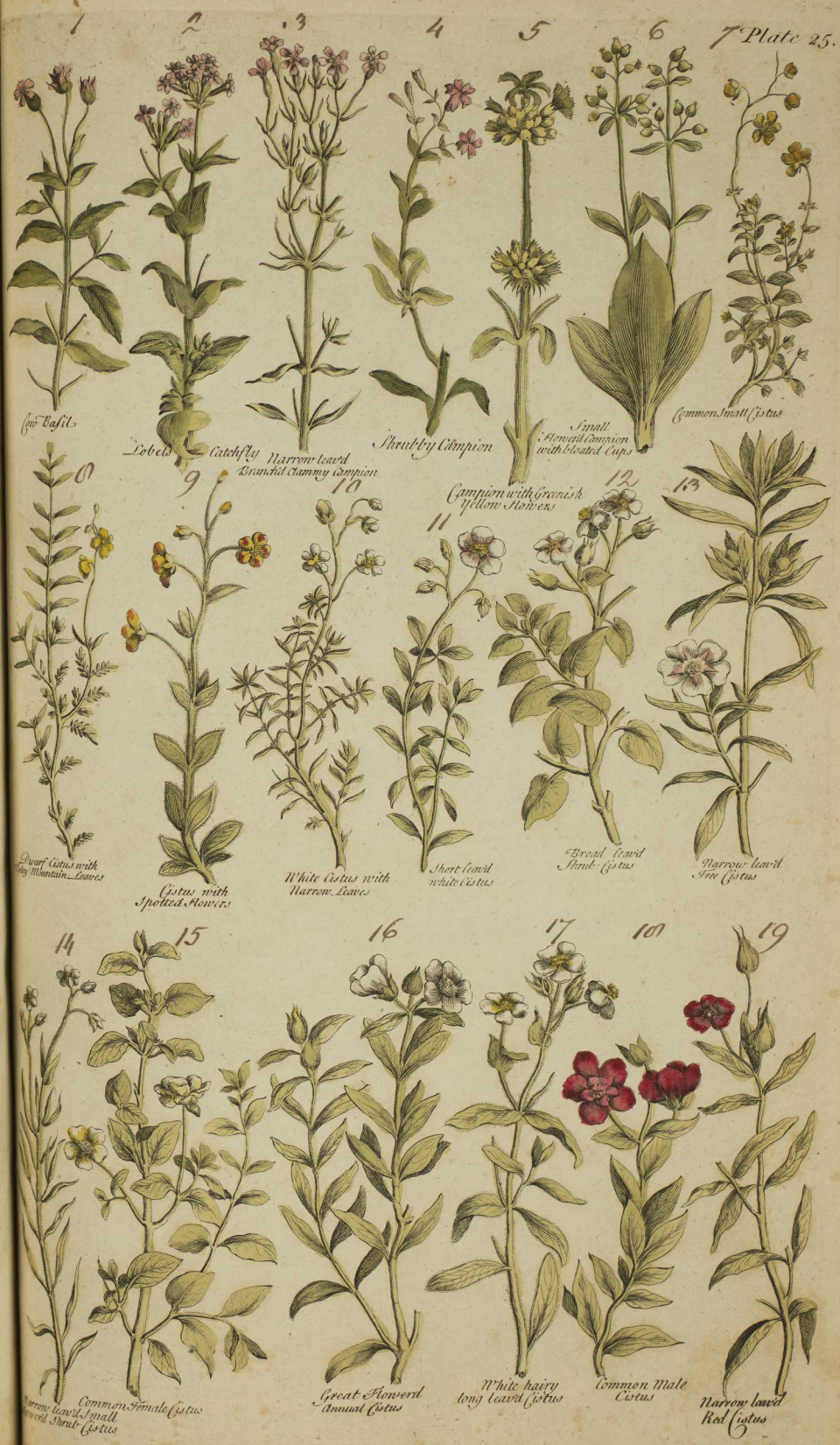


Branched Sea Spurge



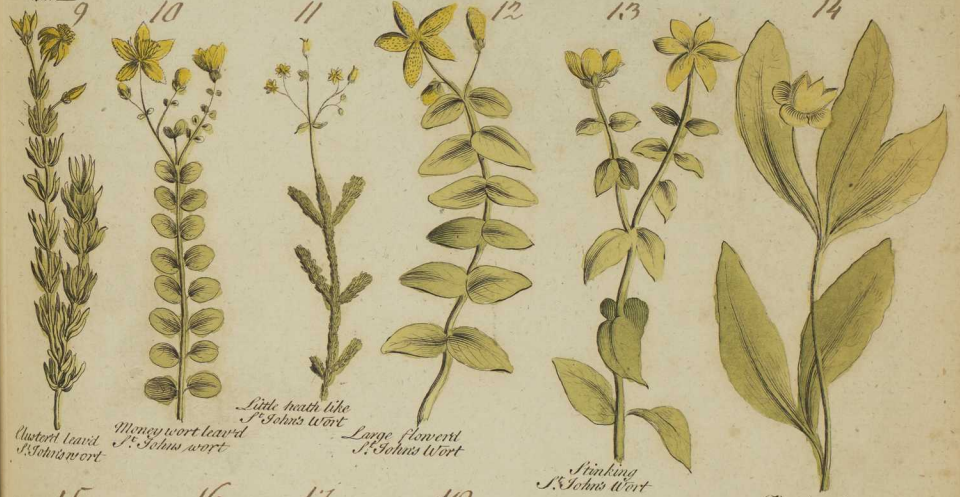








Small Brimblewort Broad leaved hairy
St. John's Wort St. John's Wort Broad leaved smooth
St. John's Wort
Salsan
St. Peter's Wort
Perfoliate
Spanish St. John's
Wort



Common St. John's
Wort
Clustered leaved
St. John's wort
Moneywort leaved
St. John's wort
Little tooth like
St. John's wort
Large flowered
St. John's Wort
Pinkish
St. John's Wort
Toad leaved
St. John's Wort



Pennis Myrtle
Cistus
Common Chick-
weed
Great water
Chickweed
Narrow leaved
water Chickweed
Broad leaved
Mountain Chickweed
Small Branchlet
Chickweed



Plantain leaved
Chickweed



Common Stitchwort



Little Grass
leaved Chickweed



Cluster leaved
Chickweed



Large fruited
Sea Chickweed

PL 27.



Procumbent narrow leaved
Sea Chickweed



Small flowered
Water Chickweed



Round leaved
creeping Chickweed



Large fruited
Rock Chickweed



Great Chickweed
with serrated
leaves



Dwarf early
Cerastium



Narrow leaved
Cerastium



Creeping Cerastium
with great flowers



Long leaved Cerastium



Common Spurrey



Common Sundew



Roundish leaved
perennial Sundew



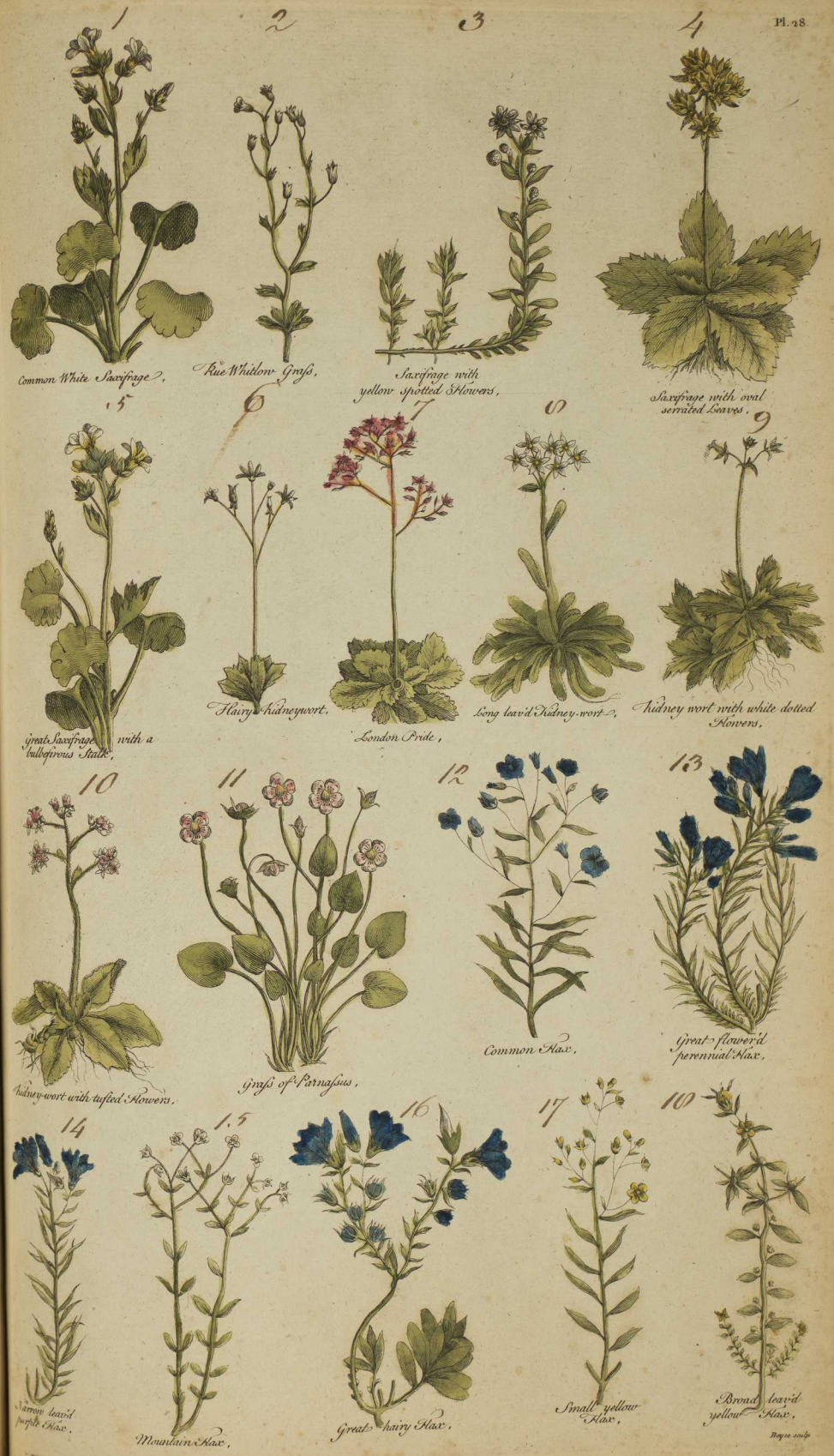
Small longish leaved
perennial Sundew



Great long leaved
Sundew



Grassy leaved
Sundew



Common White Saxifrage.

Rare Whitlow Grass.

Saxifrage with yellow spotted flowers.

Saxifrage with oval serrated leaves.

Great Saxifrage with a bulbous stalk.

Hairy Kidneywort.

London Pride.

Long leaved Kidneywort.

Kidneywort with white dotted flowers.

Kidneywort with tufted flowers.

Grass of Parnassus.

Common Hare.

Great flowered perennial Hare.

Narrow leaved purple Hare.

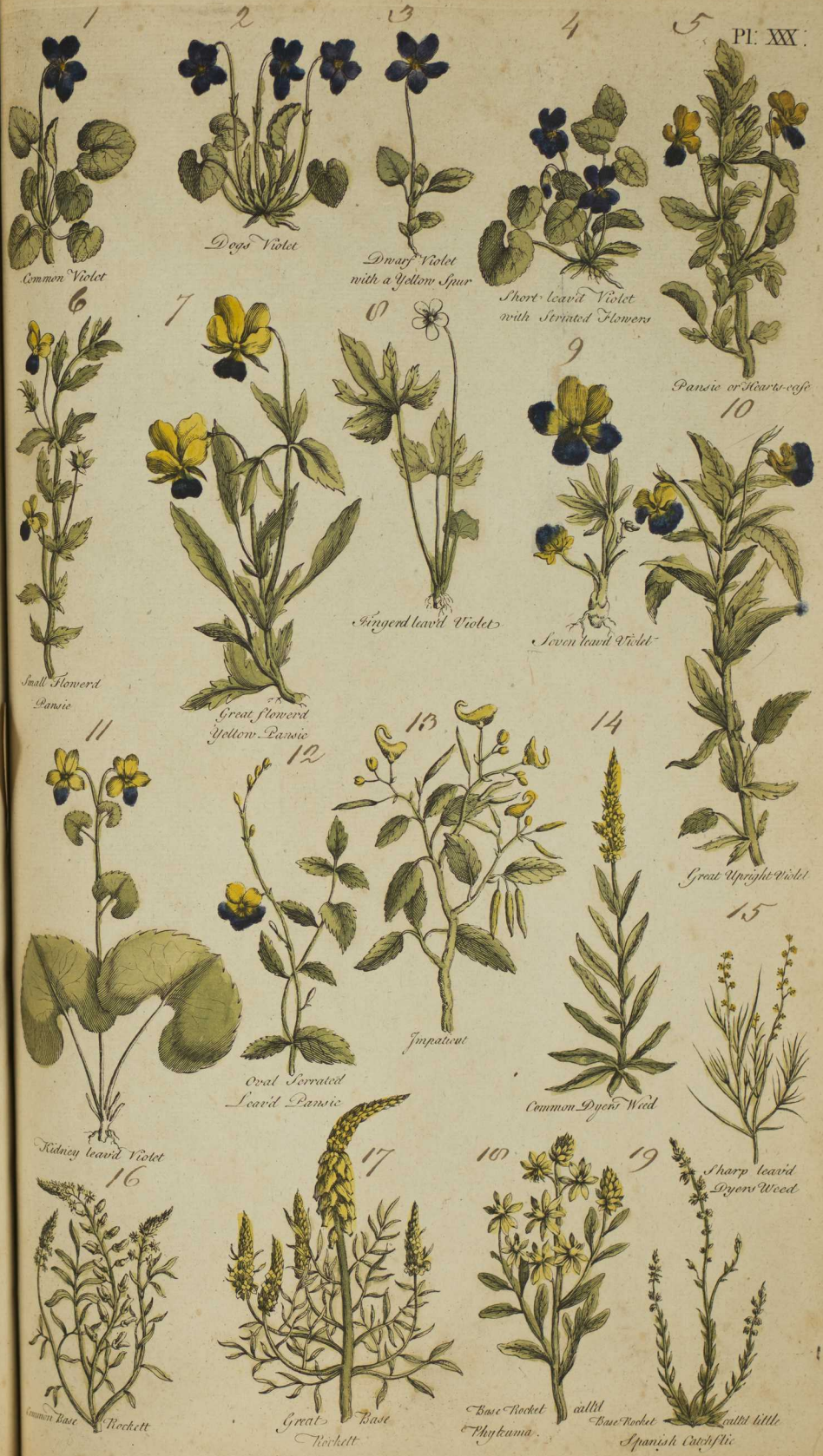
Mountain Hare.

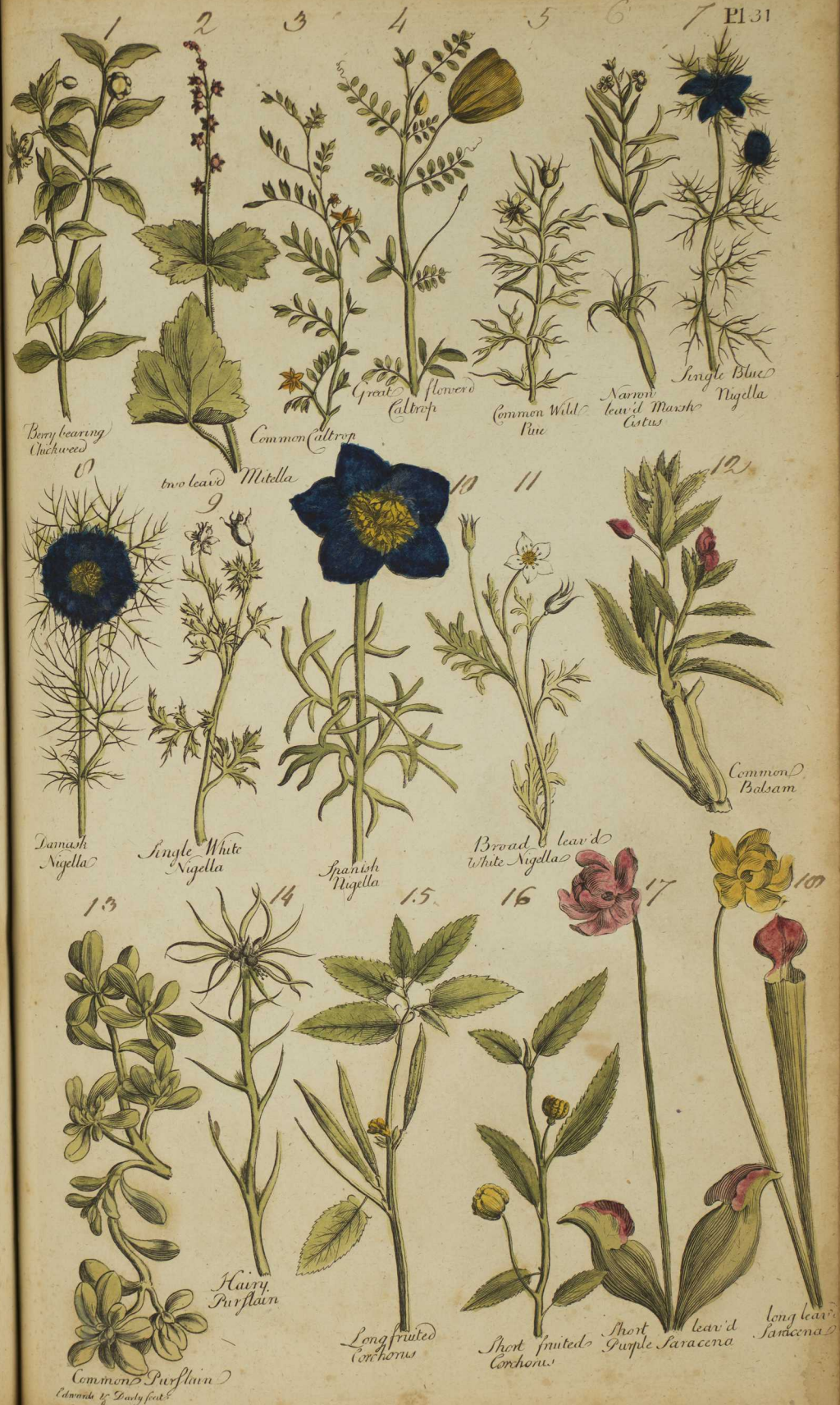
Great hairy Hare.

Small yellow Hare.

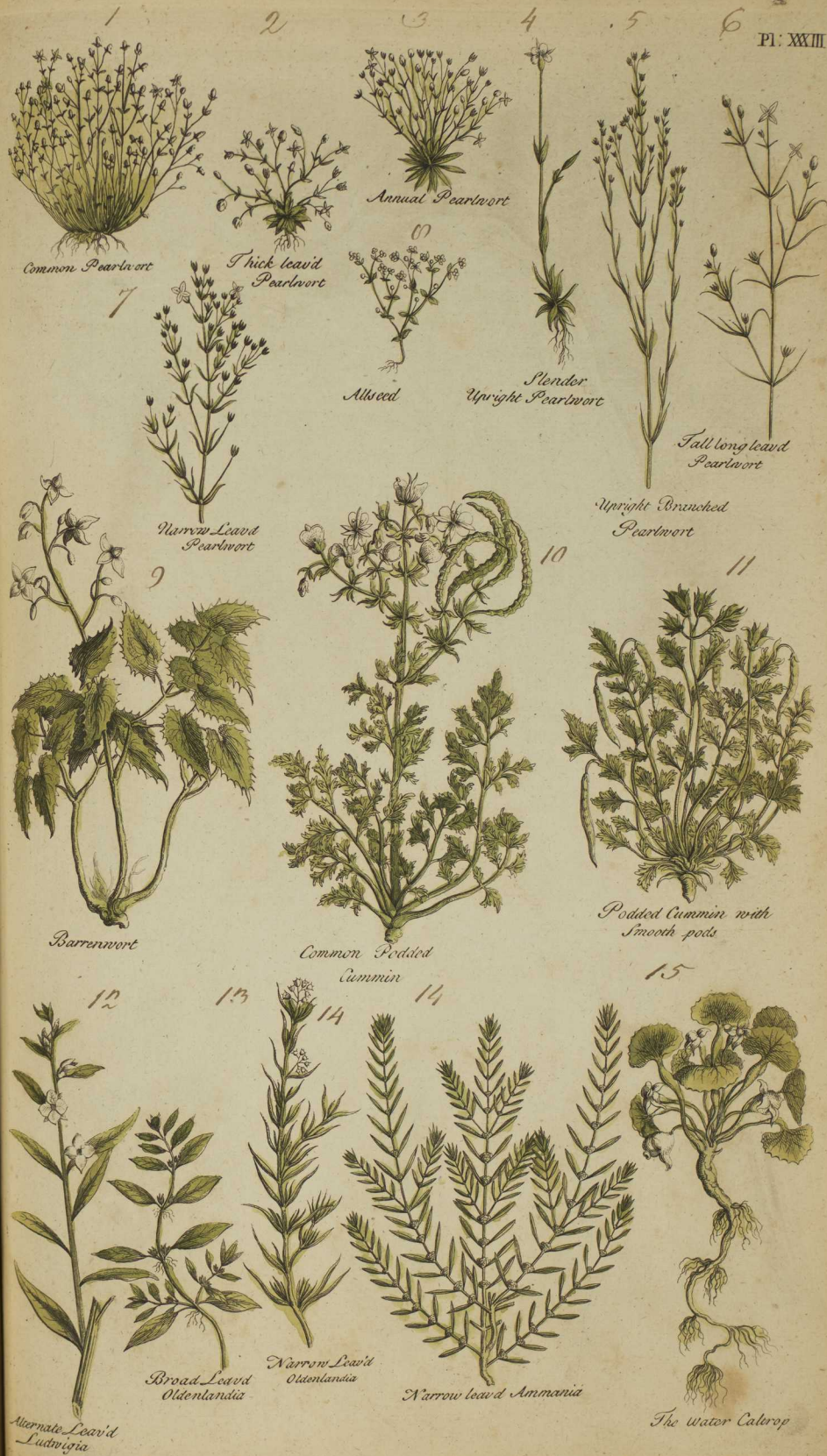
Broad leaved yellow Hare.













Common
Wall Flower.



Sea Wall Flower.



Square
Wall
peddled
Flower.



Common Stock,
July Flower.



Little Stock with
dentated Leaves.



Narrow leaved
Sea Stock.



Small Sea Stock.



Wild Hesperis.



Jack by the Hedge.



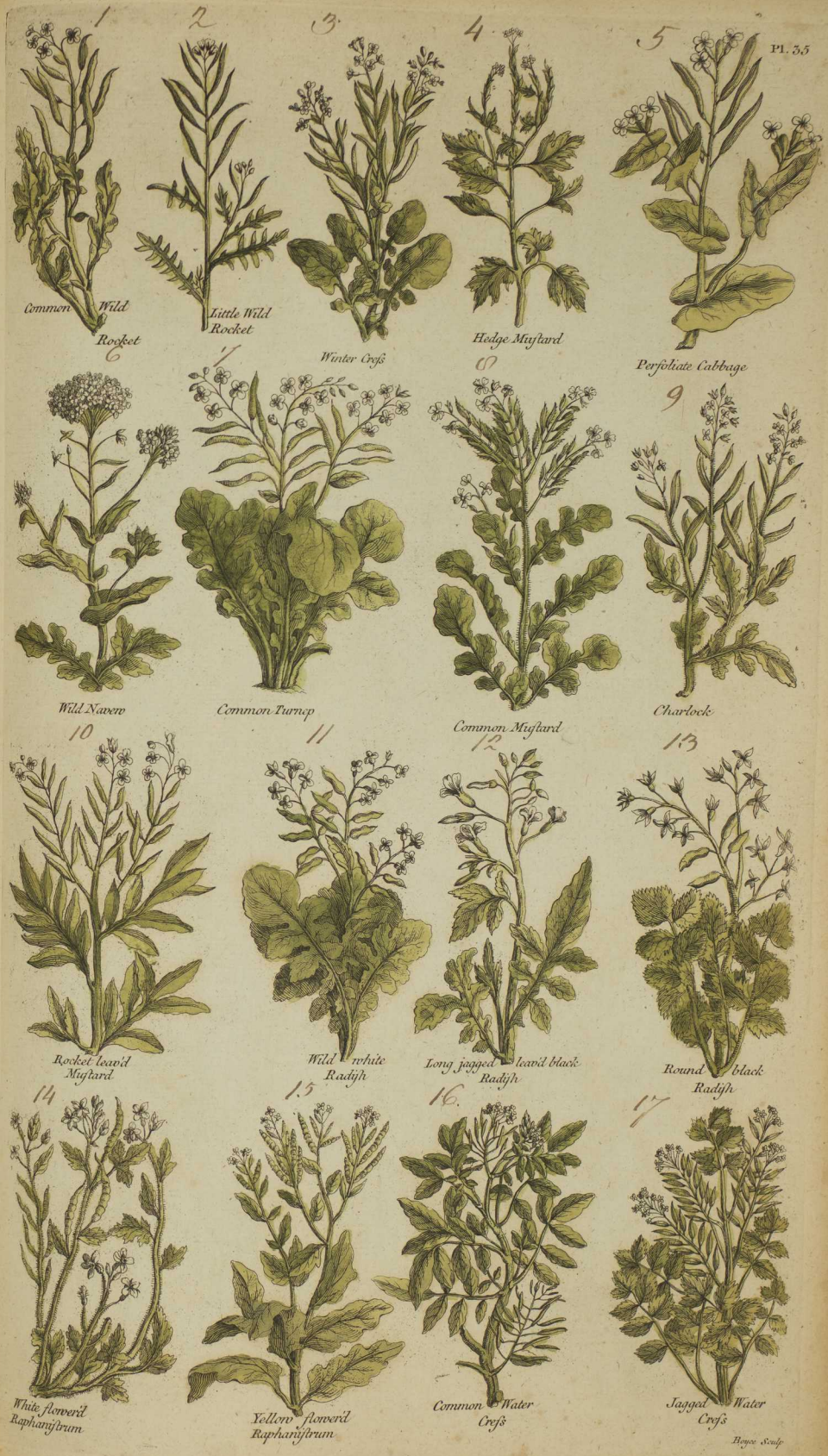
Hairy Hesperis.

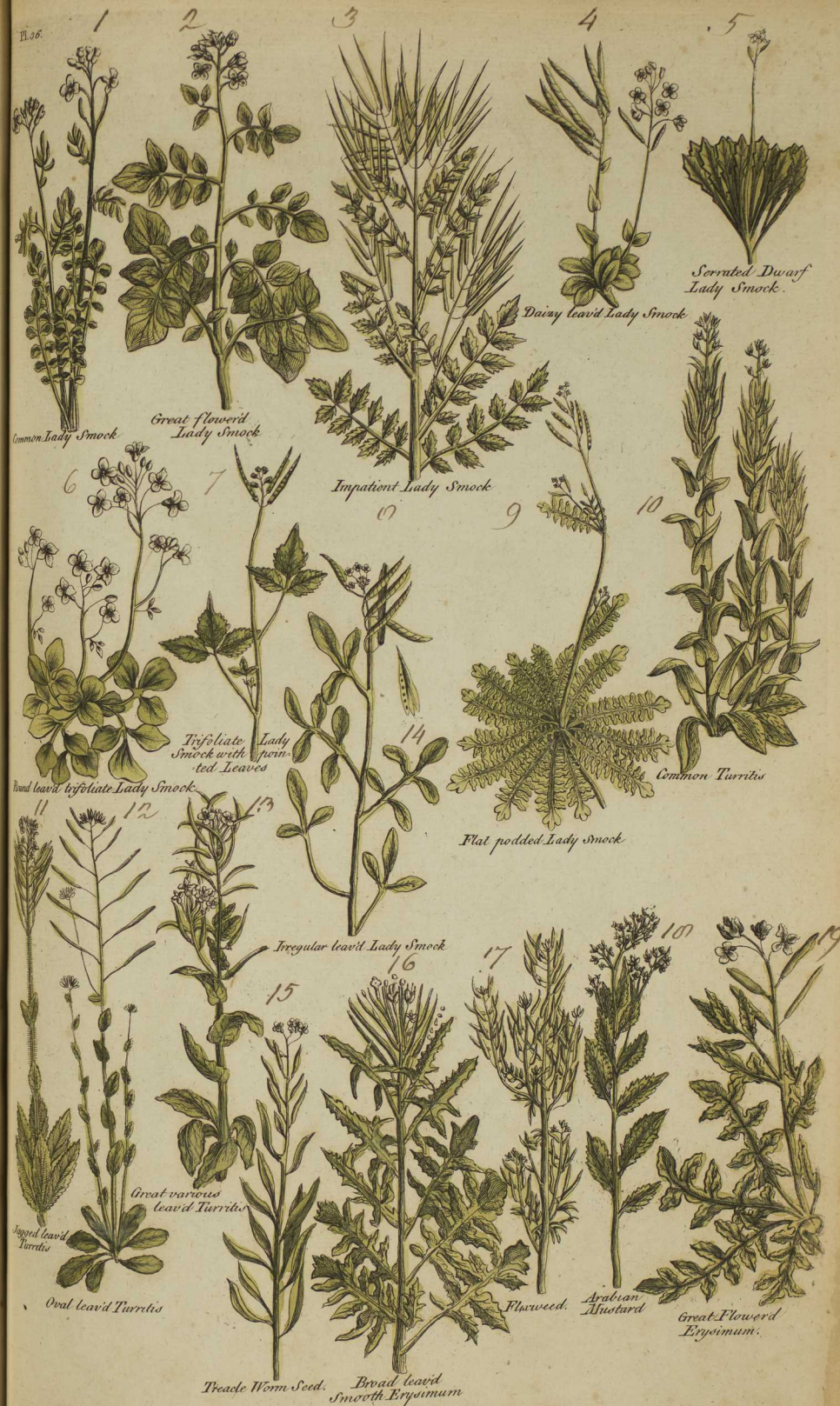


Small Heart
leaved Hesperis.



Melancholy
Hesperis.







Trifoliate Toothwort

Seven leaved Toothwort

Five leaved Toothwort

Single leaved Toothwort

Broad leaved Arabis

Common Horrad

Five leaved Sinapis

Smooth Crambe

Sea Rocket

Rough potted Crambe

Honesty

Lunar Violet with Oblong Pods

Common Willow Crag

Branch'd Willow Crag

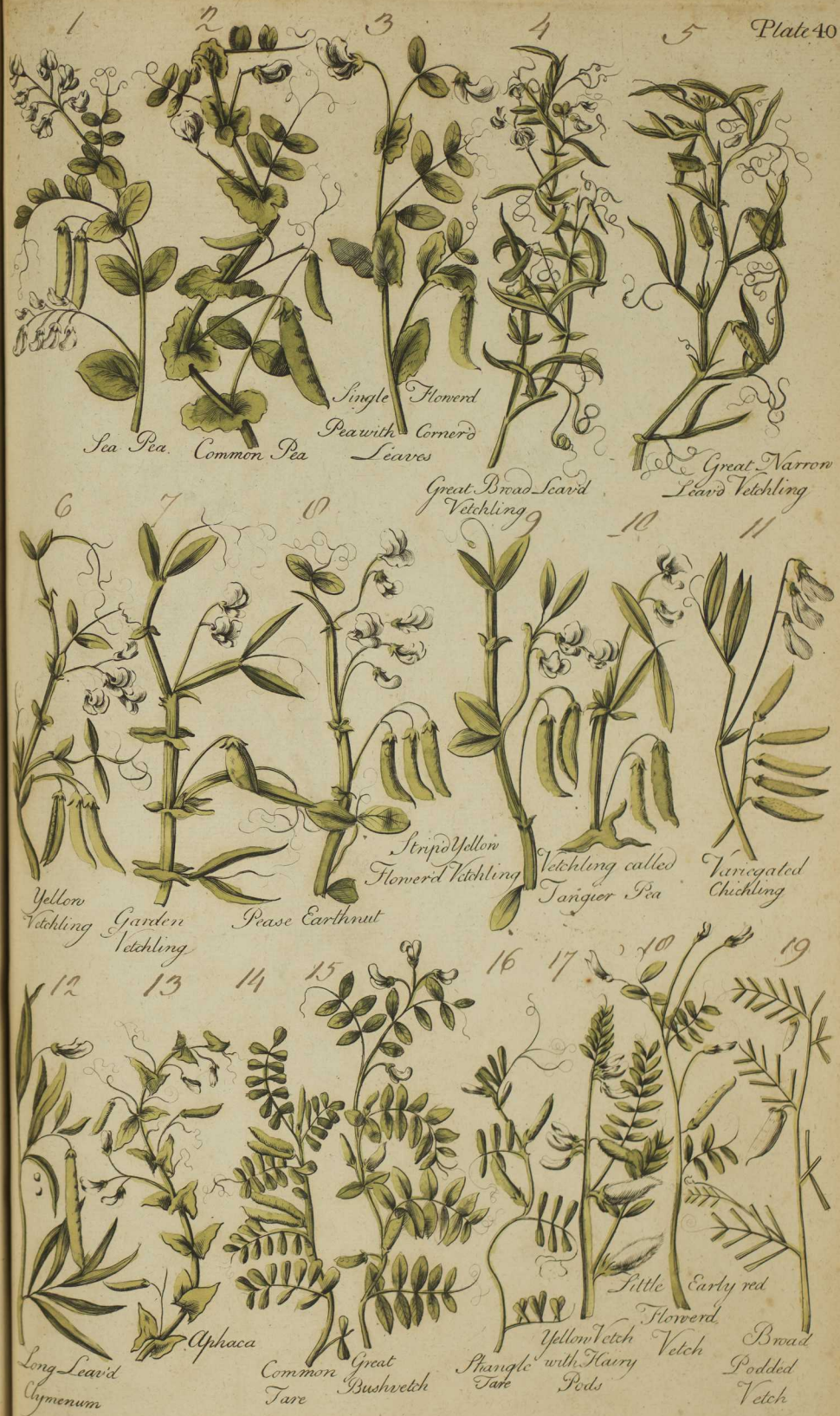
Yellow Alpine Willow Crag

Branch'd Yellow Willow Crag

Common Shepherd's Purse



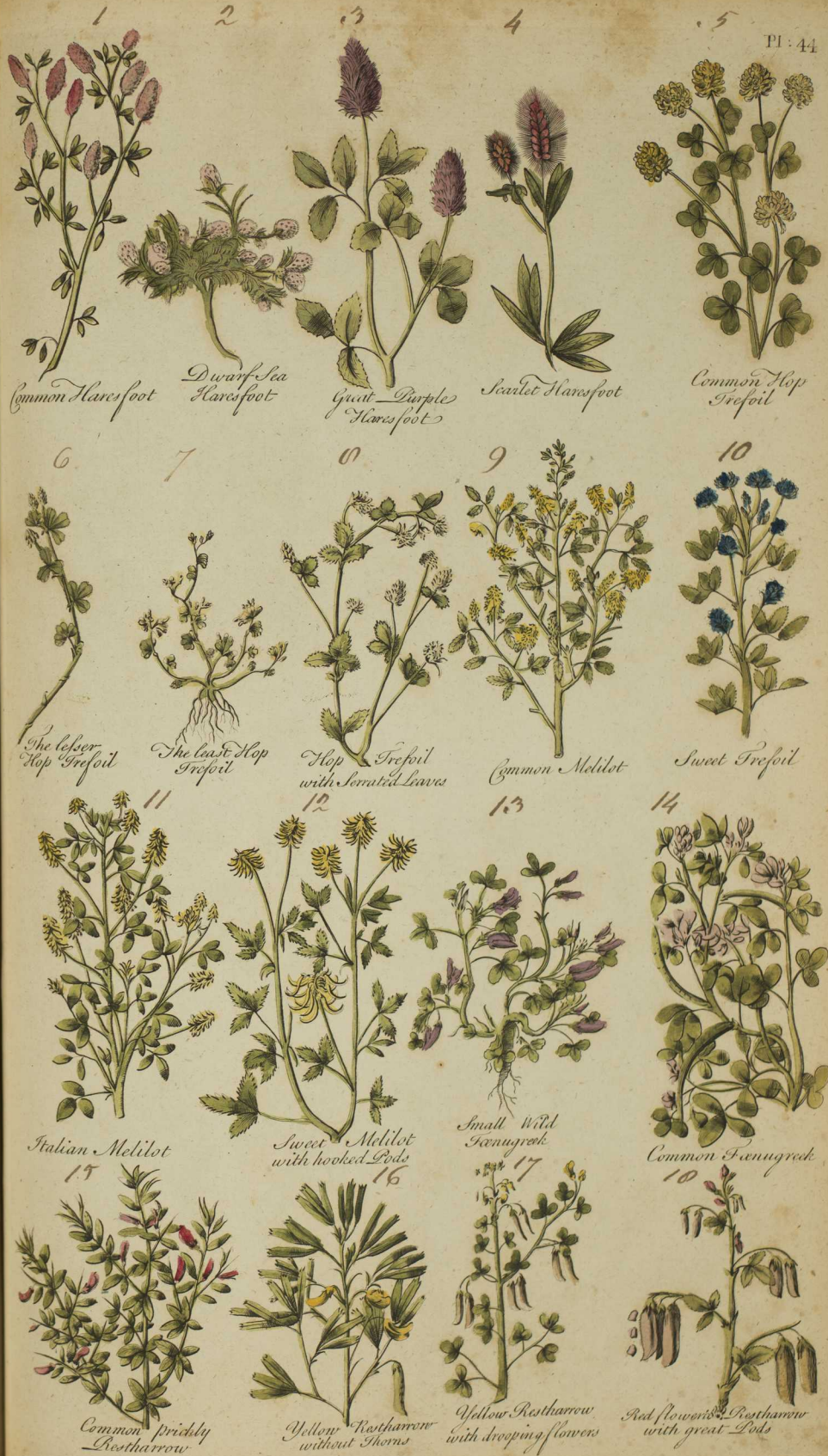


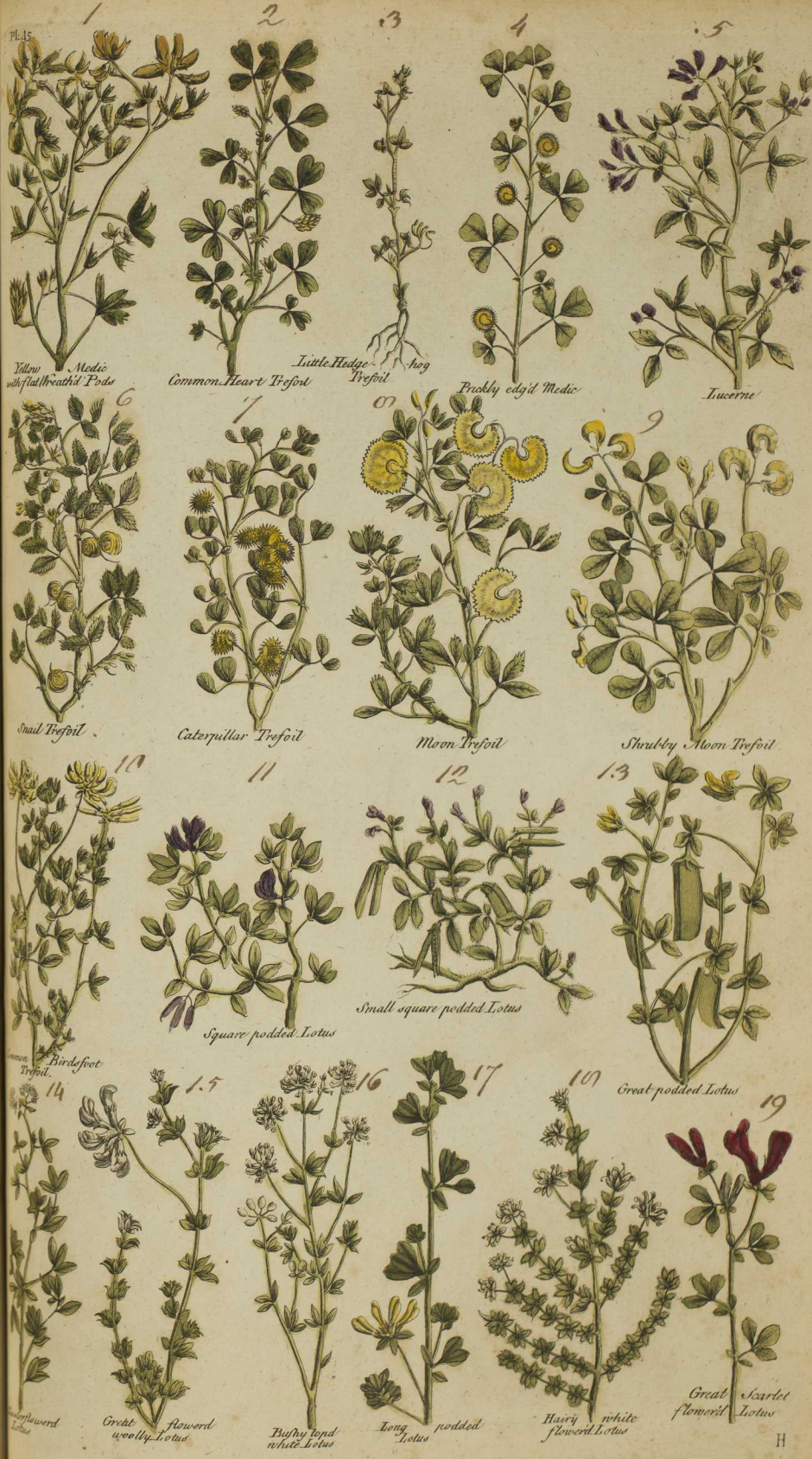












Pl. 15

Yellow Medic
with flat breasted Pods

Common Heart Trifolium

Little Hedge Trifolium

Prickly edged Medic

Lucerne

Snail Trifolium

Caterpillar Trifolium

Moon Trifolium

Shrubby Moon Trifolium

Birdsfoot Trifolium

Square podded Lotus

Small square podded Lotus

Great podded Lotus

Blackflowered Lotus

Great weedy Lotus

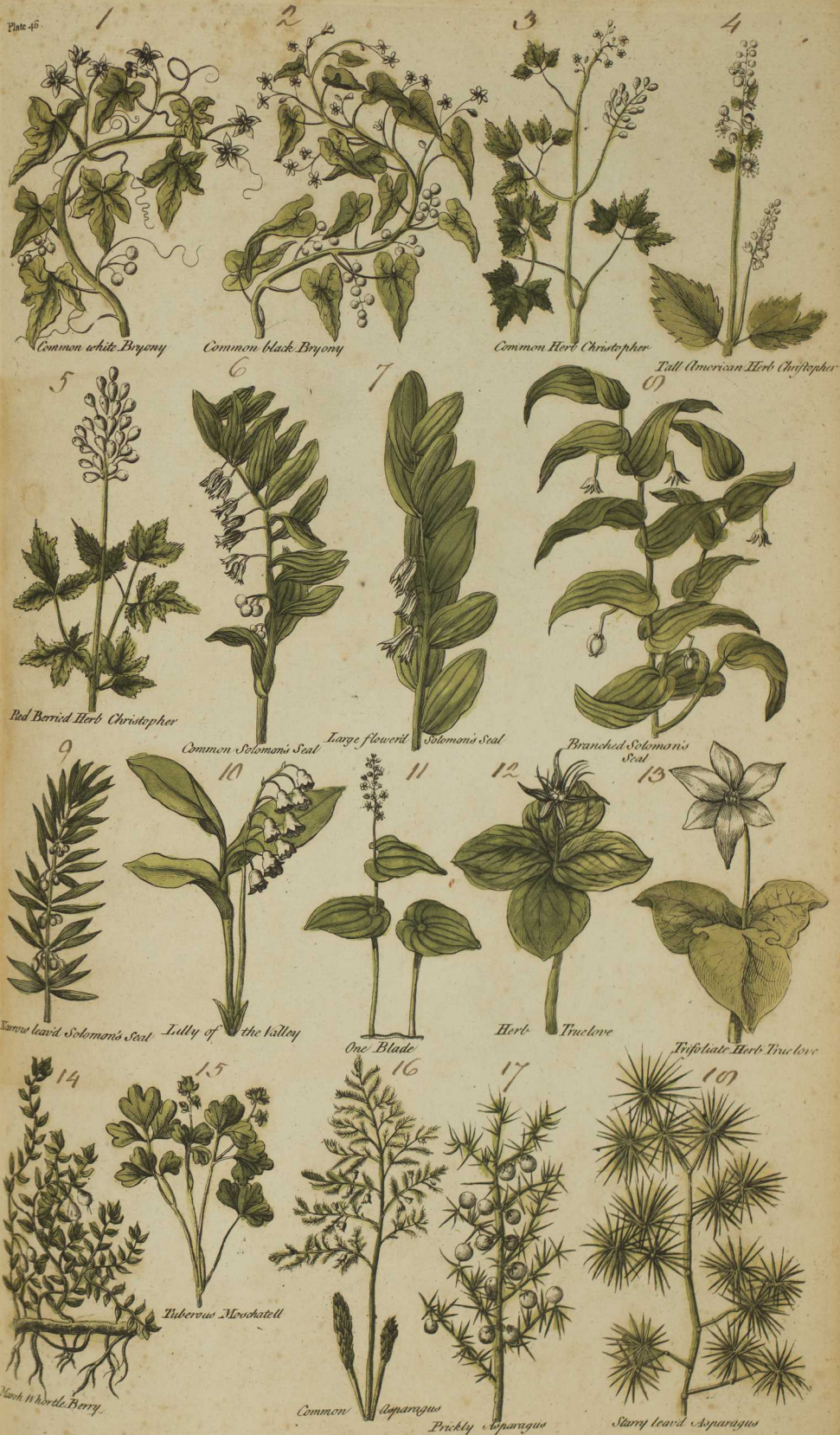
Bushy long white Lotus

Long podded Lotus

Hairy white flowered Lotus

Great Scarlet flowered Lotus

H





Woody Nightshade



Common wild Nightshade



Common Tree Nightshade



Love Apple



Potatoe



The Mad Apple



Pear fruited Nightshade



Blue flower'd
thorny Nightshade



Prickly Nightshade
with smooth Caps



Apple of Sodom



Bahama Nightshade



Deadly Nightshade



Common Cuckoo Pint



Egyptian
Bean



Arrow leaved
Bean



Common Butcher's
Broom



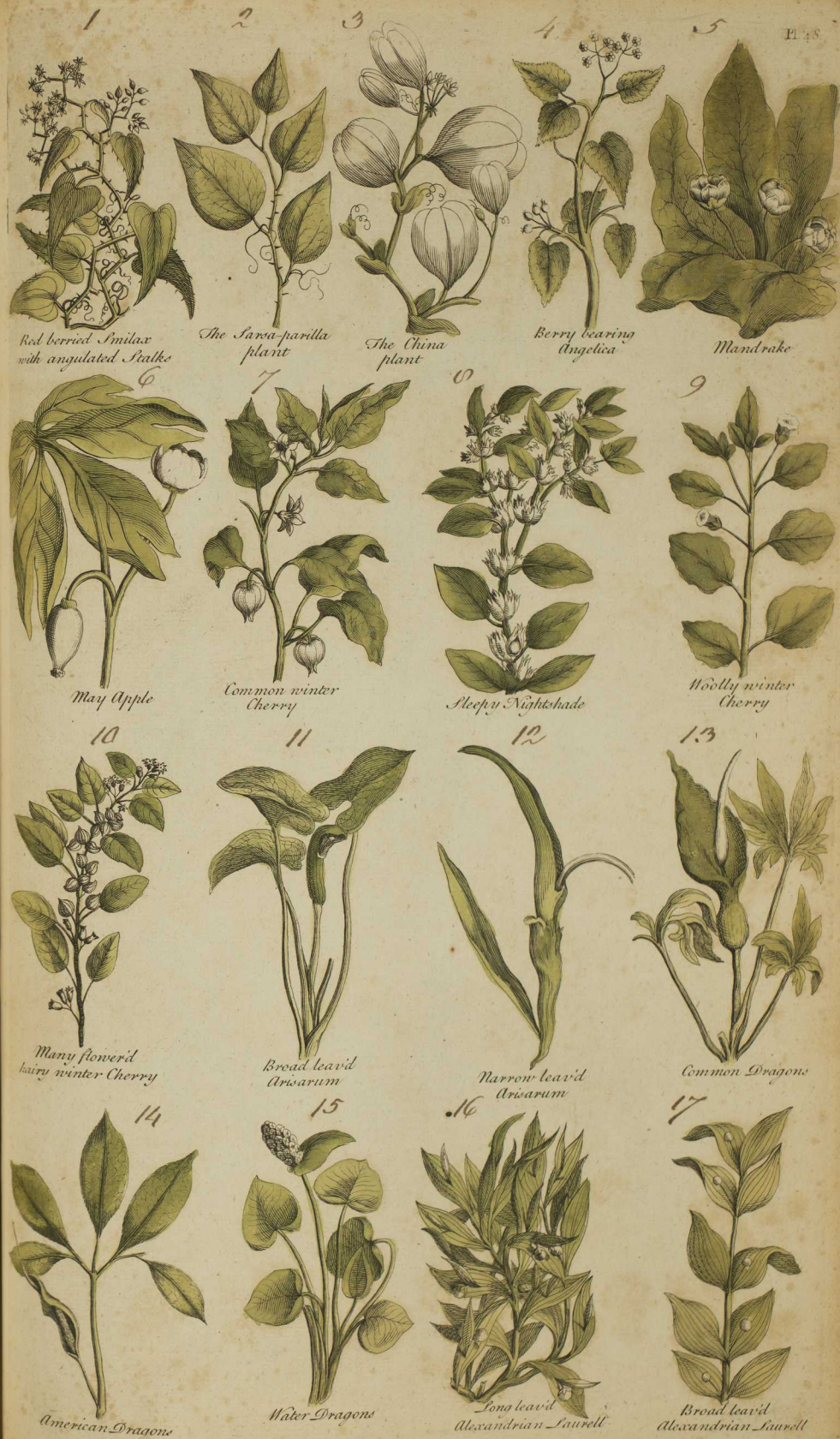
Dwarf
Honeysuckle

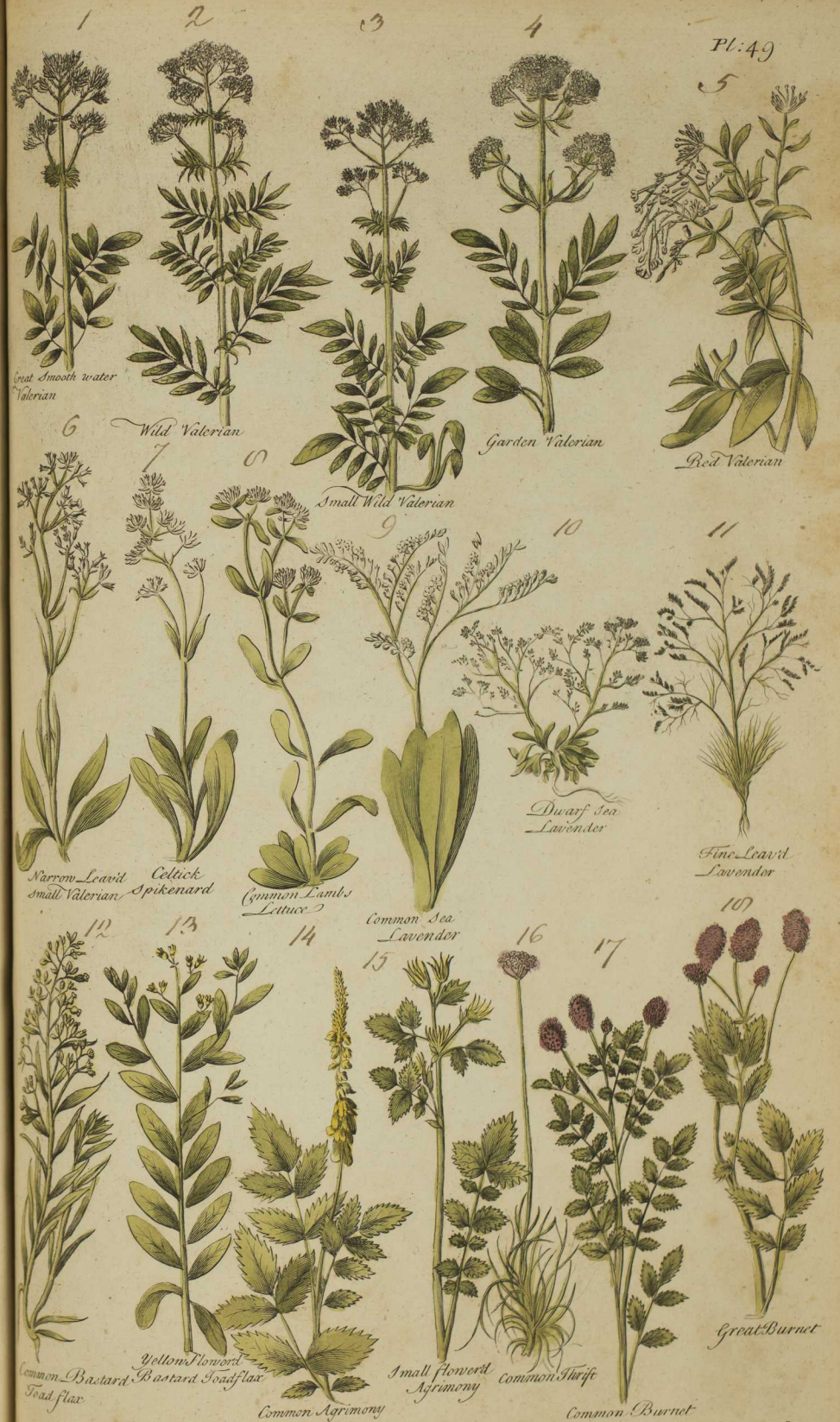


Cloud Berry



Wild Raspberry







Common Meadow Rue

5



Small Meadow Rue

6



Narrow leaved Meadow Rue

3



Common Fumitory

4



Broad leaved Climbing Fumitory



Hollow rooted Fumitory



Common thyme

10



Broad leaved mother of Thyme



Garden Thyme



Hairy verticillate Water Mint



Wild mint



Water mint



Small leaved hairy water mint



Spiked Horse mint



Pepper mint



Spear mint



Danish wild mint



Common Penny royal



Common Water Hoarhound



Common Perovain



Great flowered American Perovain



Common Marjoram



Pot Marjoram



Long Spiked Origanum



Wild Seebright



Broad leaved wild Clary



Garden Clary



Hedge Nettle



Hedge Nettle with variegated Flowers



Cat Mint



Small Cat mint



Wood Betony



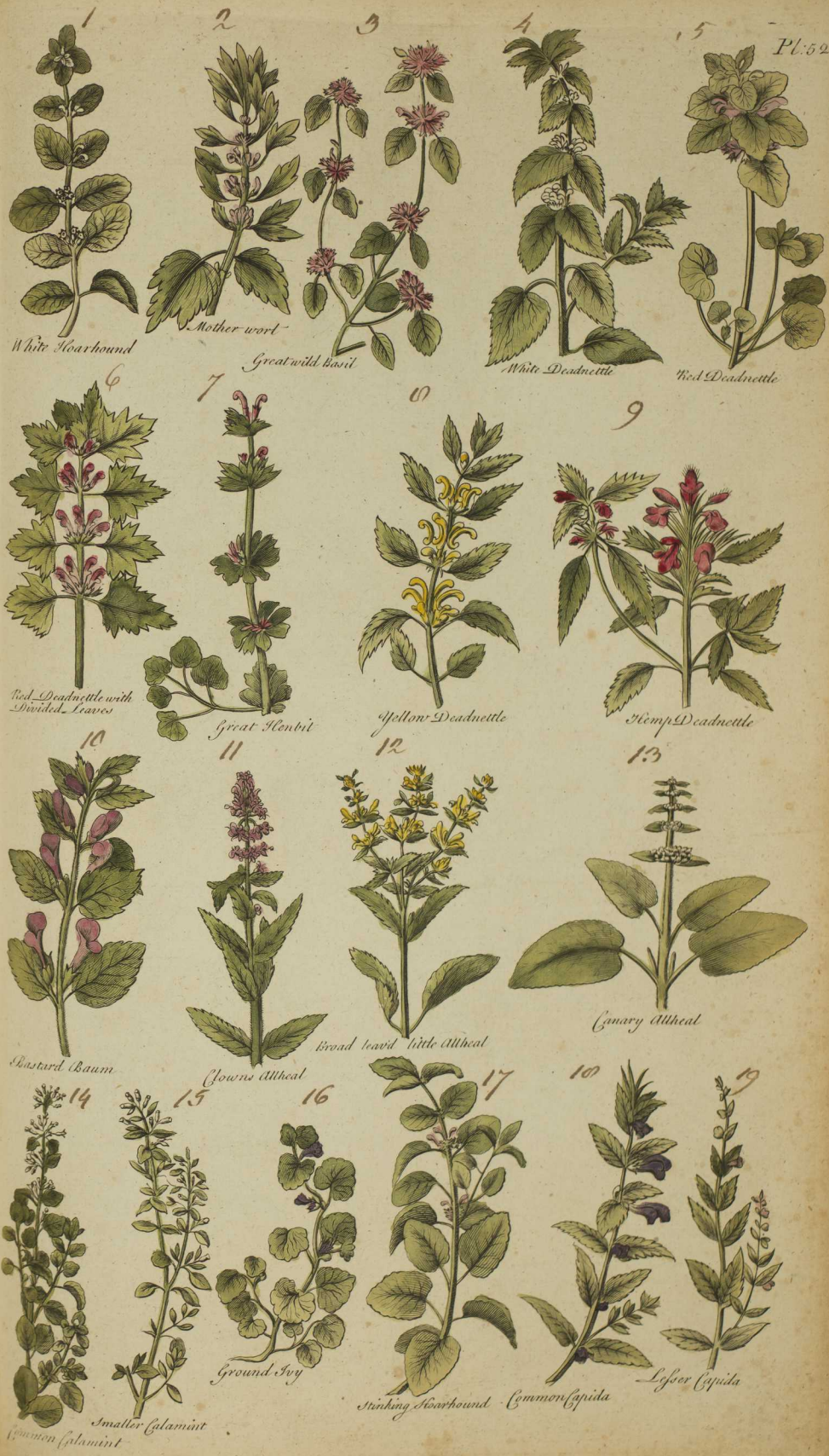
Rose Hoarhound

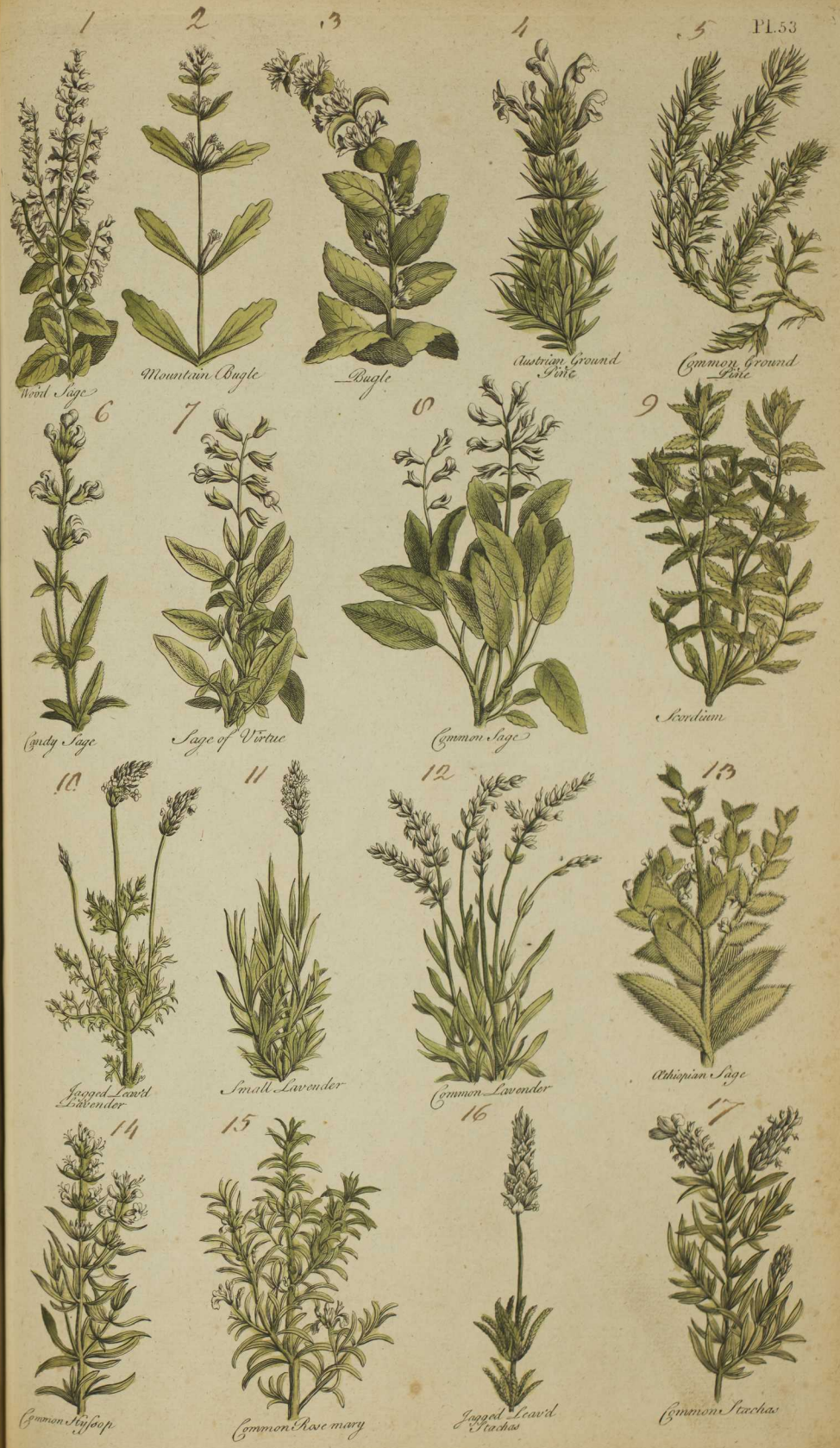


Wild Basil



Common Saffron







Summer Savory



The Thyme of the Antients



Herb mastich



Goats Marjoram



yellow Poley Mountain



White Poley Mountain



Purple Poley Mountain



Lavender-leaved Poley Mountain



Tree Germander



Spanish Tree Germander



Common Germander



Citron of Cete



Sweet Marjoram



Common Basil



Great Basil



Smooth Molucca Baum



Prickly Molucca Baum



Common Baum



Long Leaved
Pulmonaria

Broad Leaved
Pulmonaria

Great Houndstongue

Small Green leaved
Houndstongue



Borage Flowered
Houndstongue

Small wild
Bugloss

Alkanet Bugloss
Evergreen Bugloss

Garden
Bugloss



Vipers Bugloss

Wall Bugloss

African Surubby
Echium

Sea Bugloss



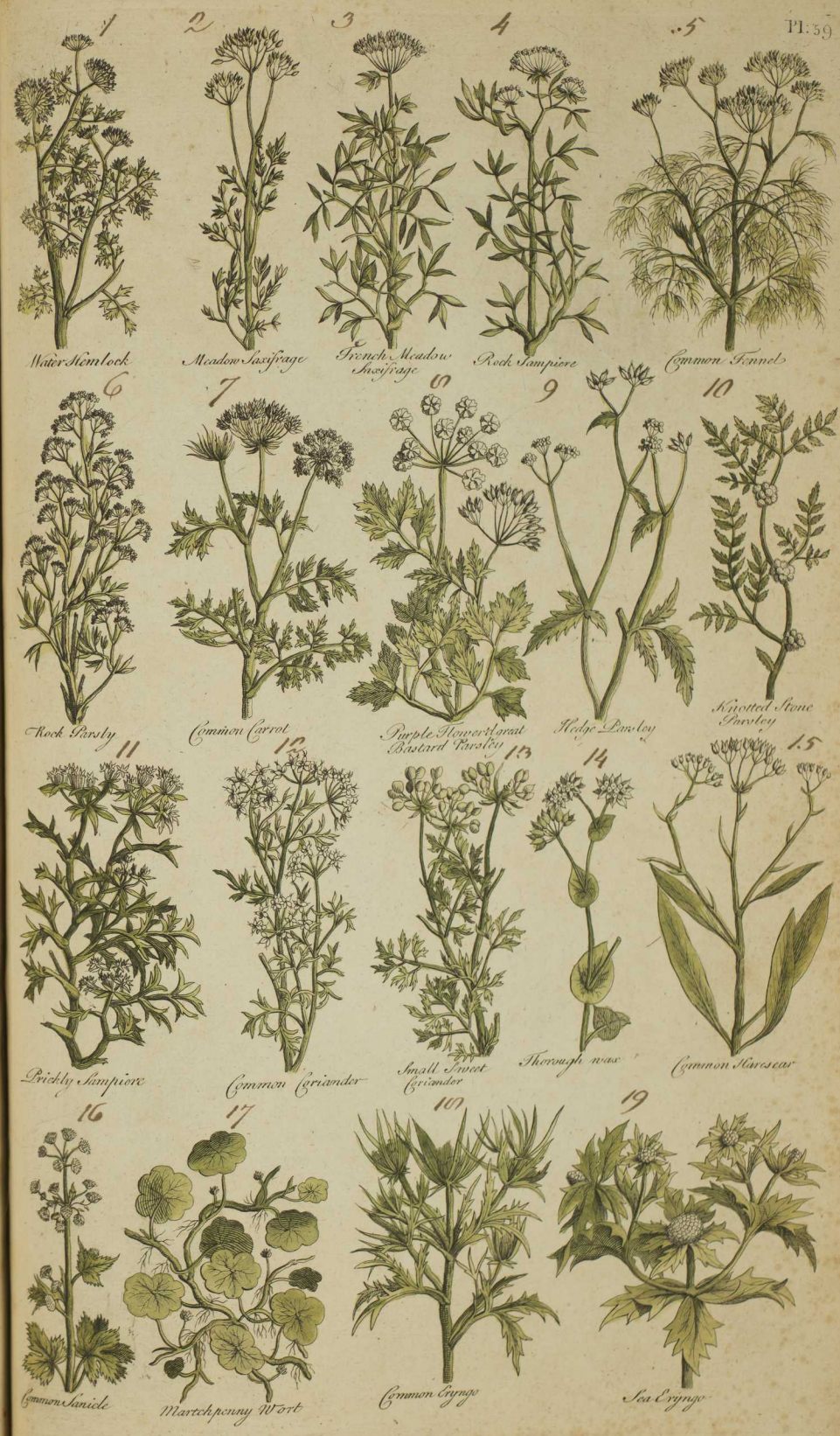
German Madwort Common Borage

Common Gromwel Creeping Gromwel Surubby Gromwel















Great Wild Lettuce



Jagged leaved Wild Lettuce



Ivy leaved Wild Lettuce



Blueflowered Mountain Lettuce



Common smooth Sowthistle



Common prickly Sowthistle



Round leaved Sowthistle



Great Marsh Sowthistle



Blue Mountain Sowthistle



Hawkweed with biten roots



Long rooted Hawkweed



Smooth yellow Hawkweed



Golden Lungwort



Narrow leaved Golden Lungwort



Single flowered Hawkweed



Red flowered Hawkweed







Butter-burr in Flower



Leaves of Butter-burr



Plowmans Spikenard



Common Hemipogon



American Hemipogon



Sea Cudweed



Long leaved upright Cudweed



Common Cudweed



The least Cudweed



Black-headed long leaved Cudweed



Mountain Cudweed



Tall American Cudweed



Cluster-headed Cudweed



Stinking Ethiopian Cudweed



Common Corn Marygold



Indian Corn Marygold



Common Oxeye

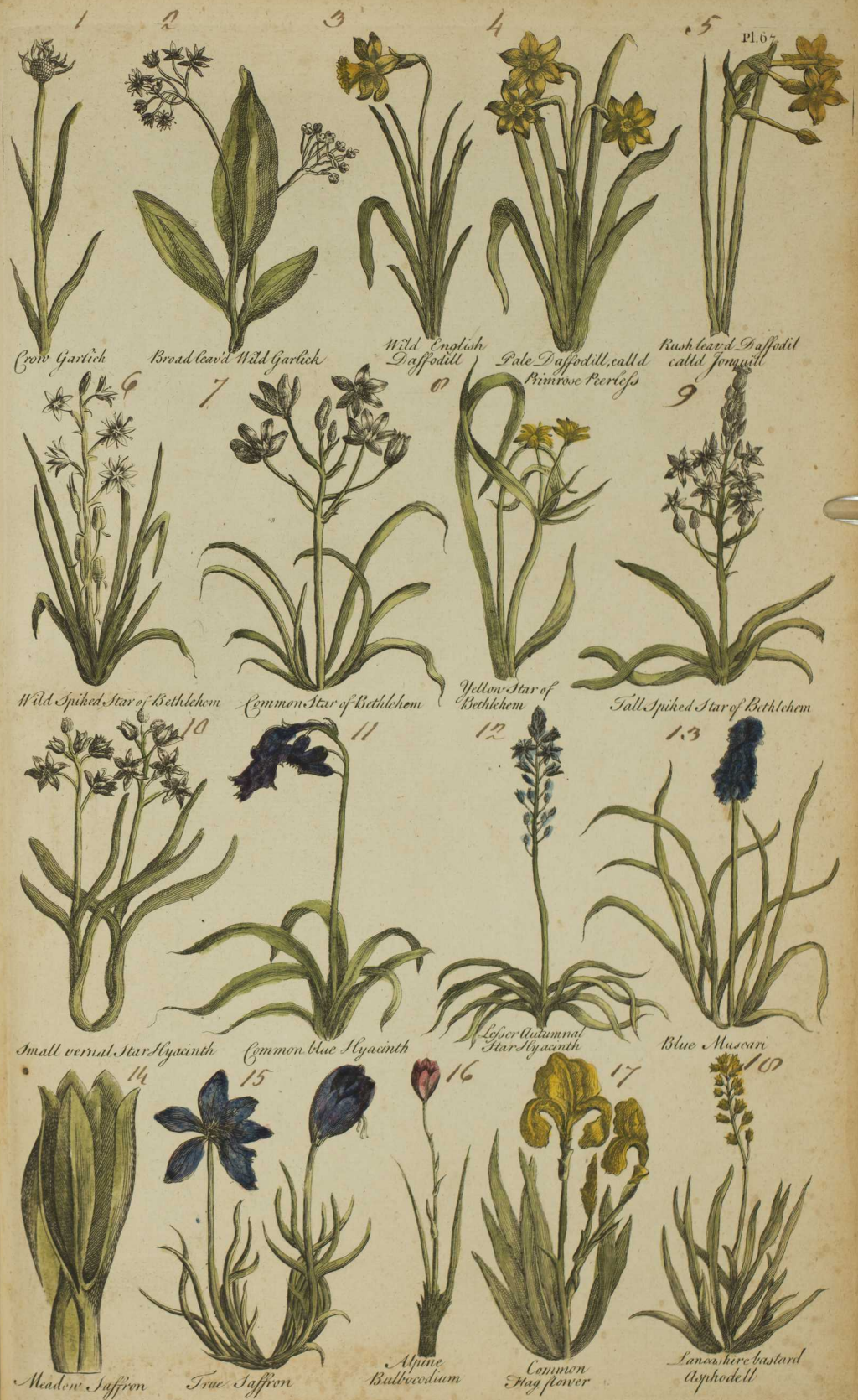


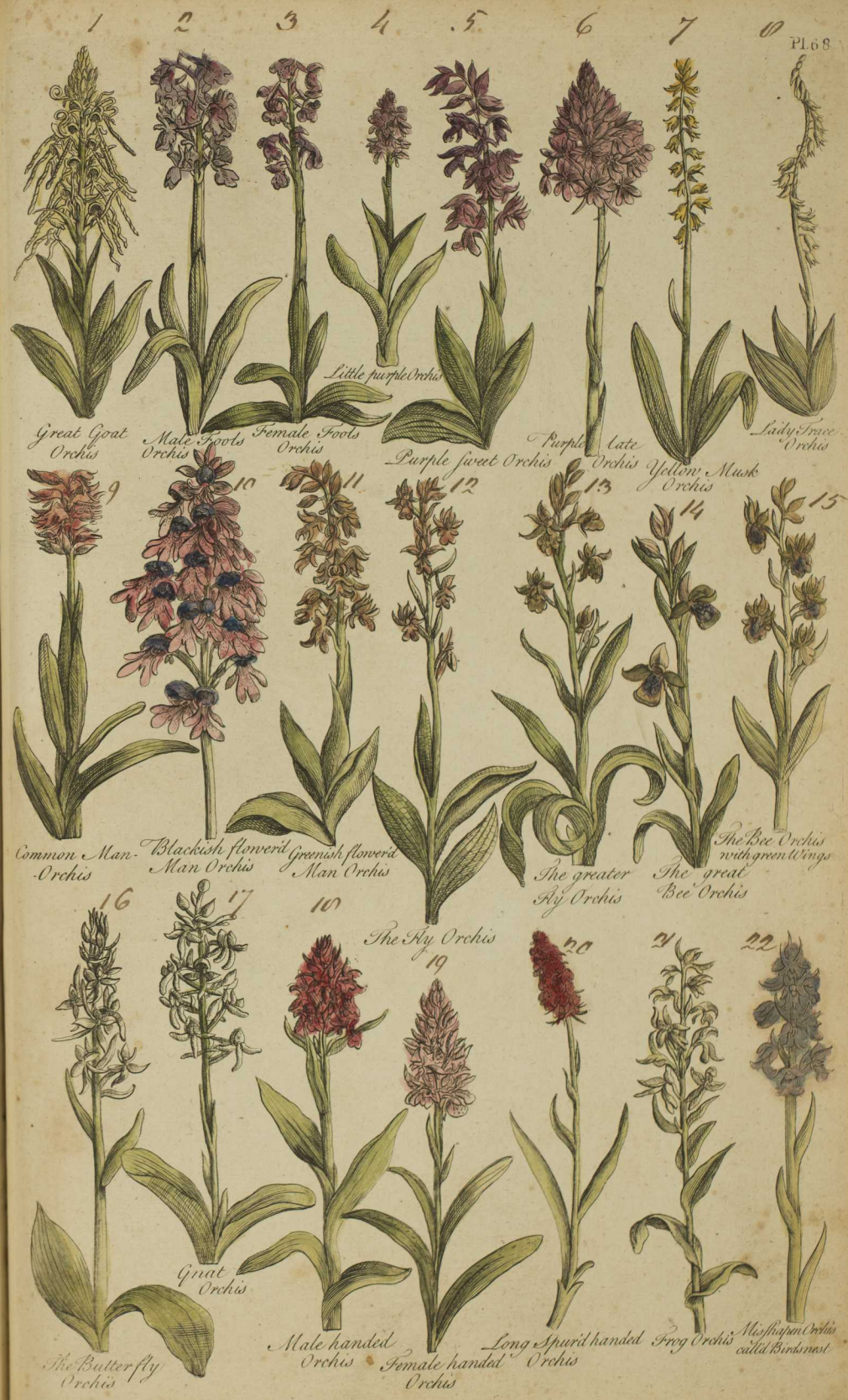
Common Succowort



Virginia Succowort







- 1 Great Goat Orchis
- 2 Male Fools Orchis
- 3 Female Fools Orchis
- 4 Little purple Orchis
- 5 Purple sweet Orchis
- 6 Purple late Orchis
- 7 Yellow Musk Orchis
- 8 Lady Tress Orchis
- 9 Common Man Orchis
- 10 Blackish flower'd Man Orchis
- 11 Greenish flower'd Man Orchis
- 12 The greater Fly Orchis
- 13 The great Bee Orchis
- 14 The Bee Orchis with green wings
- 15 The Fly Orchis
- 16 The Butterfly Orchis
- 17 Great Orchis
- 18 Male handed Orchis
- 19 Female handed Orchis
- 20 Long Spur'd handed Orchis
- 21 Frog Orchis
- 22 Miss Haydon Orchis called Birds nest



1
Common Hellebore

2
Purple narrow leaved Hellebore

13
Ladies Slipper

4
Common Ivy-leafed

5
Horned Sponygeton

6
Short leaved Linum catharticum

7
Pepper Grass

8
Jointed Glaspwort

9
Common Hops

10
Common Hemp

11
Dogs Mercury

12
French Mercury

13
Common Nettle

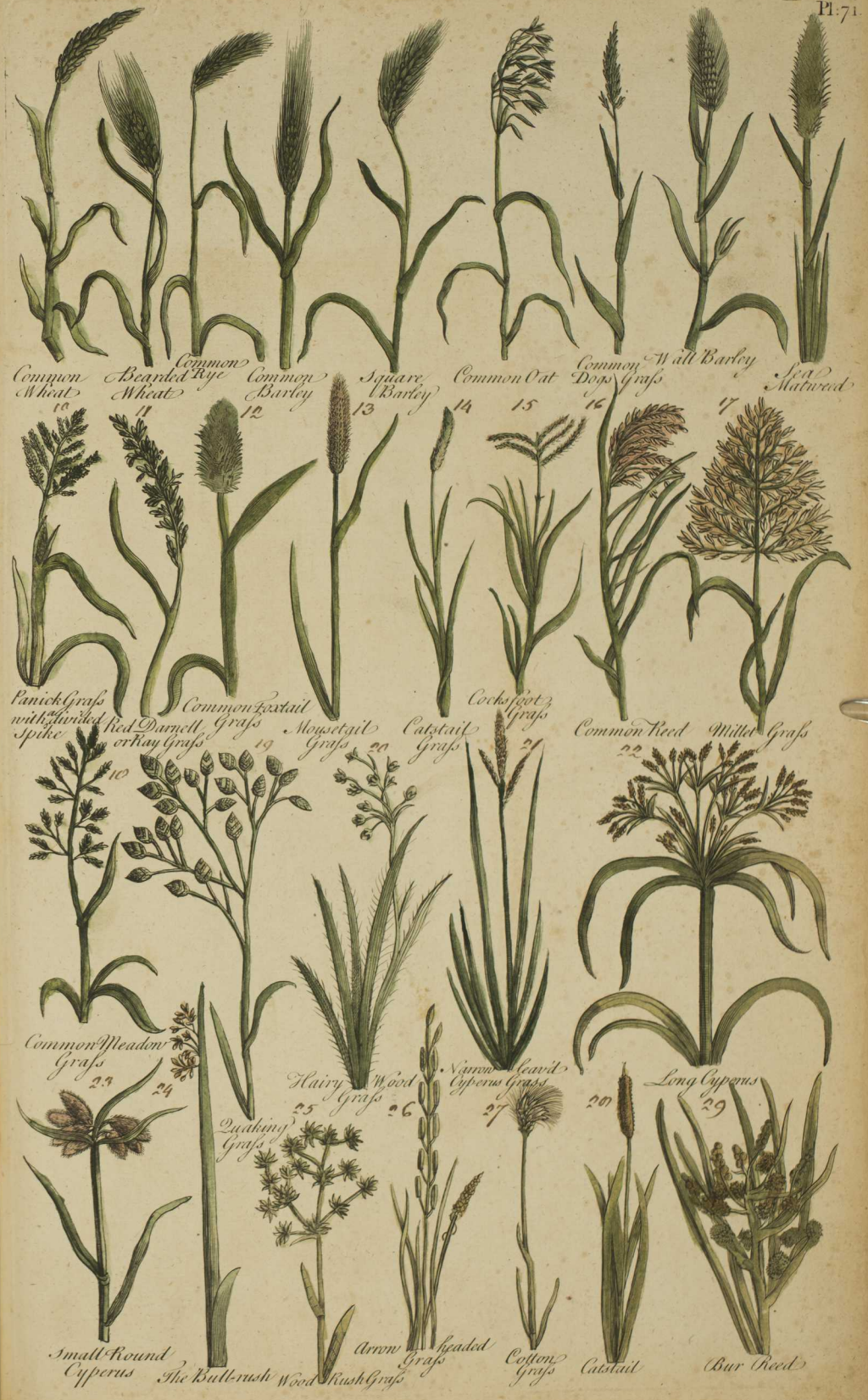
14
Roman Nettle

15
Ranuncium acutifolium

16
Great Water Dock

17
Sharp pointed Dock

Monks Rhubarb





1 The Walnut Tree.



2 The Hazel.



3 The Beech.



4 The Chestnut.



5 The Oak.



6 The Yew leaf & Fruit.



7 The Alder.



8 The Birch Tree.



9 Sweet Gale.



10 Common Juniper.



11 Yew.



12 Black-berryed Empetrum.



13 Common Bramble.



14 Sea Buckthorn.



15 The Yew Tree.



16 The White Poplar.



17 The Aspen Tree.



18 Common White Willow.



19 The Hornbeam.



20 The Crab.



21 The Wild Pear.



22 The Tree Service.



23 The Common Service.



24 The Quicken Tree.



25 The White Beam.





Common Harts-tongue.



Polypody. Rough Spleen-wort.



Smooth Spleen-wort.



Dwarf Sea-Fern.



English Maidenhair.



Forked Maidenhair.



Common Male Fern.



White Maidenhair.



Tree Maidenhair.



Common Female Fern.



Black Maidenhair.



Winged Maidenhair.



Aspid Royal.



Alders Tongue.



Moortwort.



Common Duckweed.



Large Duckweed.



Great Water Horsetail.



Wood Horsetail.



